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TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

|              |    |         |   |
|--------------|----|---------|---|
| NEWS         | 1  |         | Web Page URLs for STN Seminar Schedule - N. America   |
| NEWS         | 2  |         | "Ask CAS" for self-help around the clock  |
| NEWS         | 3  | FEB 27  | New STN AnaVist pricing effective March 1, 2006   |
| NEWS         | 4  | MAY 10  | CA/CAPLUS enhanced with 1900-1906 U.S. patent records   |
| NEWS         | 5  | MAY 11  | KOREAPAT updates resume   |
| NEWS         | 6  | MAY 19  | Derwent World Patents Index to be reloaded and enhanced   |
| NEWS         | 7  | MAY 30  | IPC 8 Rolled-up Core codes added to CA/CAPLUS and<br>USPATFULL/USPAT2   |
| NEWS         | 8  | MAY 30  | The F-Term thesaurus is now available in CA/CAPLUS  |
| NEWS         | 9  | JUN 02  | The first reclassification of IPC codes now complete in<br>INPADOC  |
| NEWS         | 10 | JUN 26  | TULSA/TULSA2 reloaded and enhanced with new search and<br>and display fields  |
| NEWS         | 11 | JUN 28  | Price changes in full-text patent databases EPFULL and PCTFULL  |
| NEWS         | 12 | JUL 11  | CHEMSAFE reloaded and enhanced  |
| NEWS         | 13 | JUL 14  | FSTA enhanced with Japanese patents   |
| NEWS         | 14 | JUL 19  | Coverage of Research Disclosure reinstated in DWPI  |
| NEWS         | 15 | AUG 09  | INSPEC enhanced with 1898-1968 archive  |
| NEWS         | 16 | AUG 28  | ADISCTI Reloaded and Enhanced   |
| NEWS         | 17 | AUG 30  | CA(SM)/CAPLUS(SM) Austrian patent law changes   |
| NEWS         | 18 | SEP 11  | CA/CAPLUS enhanced with more pre-1907 records   |
| NEWS         | 19 | SEP 21  | CA/CAPLUS fields enhanced with simultaneous left and right<br>truncation  |
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| NEWS         | 22 | SEP 25  | CAS REGISTRY(SM) updated with amino acid codes for pyrrolysine  |
| NEWS         | 23 | SEP 28  | CEABA-VTB classification code fields reloaded with new<br>classification scheme   |
| NEWS EXPRESS |    | JUNE 30 | CURRENT WINDOWS VERSION IS V8.01b, CURRENT<br>MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),<br>AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006. |
| NEWS HOURS   |    |         | STN Operating Hours Plus Help Desk Availability   |
| NEWS LOGIN   |    |         | Welcome Banner and News Items   |
| NEWS IPC8    |    |         | For general information regarding STN implementation of IPC 8   |
| NEWS X25     |    |         | X.25 communication option no longer available   |

Enter NEWS followed by the item number or name to see news on that specific topic.

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 15:17:10 ON 05 OCT 2006

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 15:17:24 ON 05 OCT 2006

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STRUCTURE FILE UPDATES: 4 OCT 2006 HIGHEST RN 909643-31-8

DICTIONARY FILE UPDATES: 4 OCT 2006 HIGHEST RN 909643-31-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

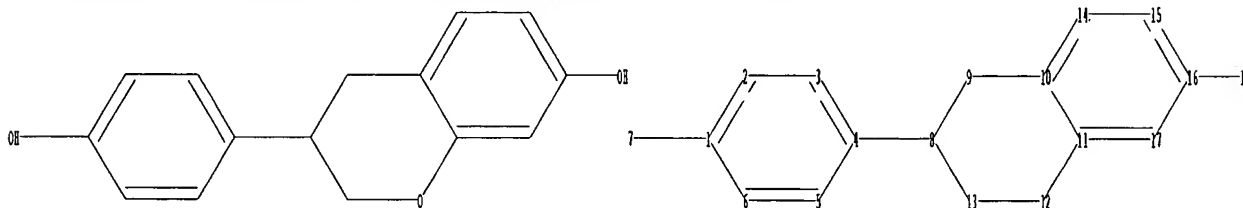
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10625934.str



chain nodes :

7 18

ring nodes :

1 2 3 4 5 6 8 9 10 11 12 13 14 15 16 17

chain bonds :

1-7 4-8 16-18

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-13 9-10 10-11 10-14 11-12 11-17 12-13  
14-15 15-16 16-17

exact/norm bonds :

1-7 8-9 8-13 9-10 11-12 12-13 16-18

exact bonds :

4-8

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 10-11 10-14 11-17 14-15 15-16 16-17

Match level :

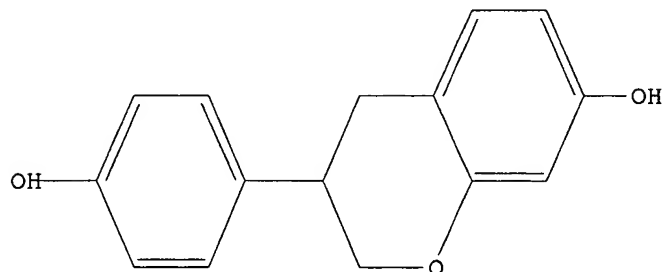
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:Atom 9:Atom 10:Atom  
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:CLASS

L1 STRUCTURE UPLOADED

=> d

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 15:17:37 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 1583 TO ITERATE

100.0% PROCESSED 1583 ITERATIONS

28 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 29274 TO 34046

PROJECTED ANSWERS: 243 TO 877

L2 28 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 15:17:40 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 30767 TO ITERATE

100.0% PROCESSED 30767 ITERATIONS

559 ANSWERS

SEARCH TIME: 00.00.01

L3 559 SEA SSS FUL L1

=> fil caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

166.94

167.15

FILE 'CAPLUS' ENTERED AT 15:17:43 ON 05 OCT 2006

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FILE COVERS 1907 - 5 Oct 2006 VOL 145 ISS 15  
FILE LAST UPDATED: 4 Oct 2006 (20061004/ED)

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=> s l3

L4 1058 L3

=> fil reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.46

167.61

FILE 'REGISTRY' ENTERED AT 15:17:48 ON 05 OCT 2006  
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STRUCTURE FILE UPDATES: 4 OCT 2006 HIGHEST RN 909643-31-8  
DICTIONARY FILE UPDATES: 4 OCT 2006 HIGHEST RN 909643-31-8

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TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

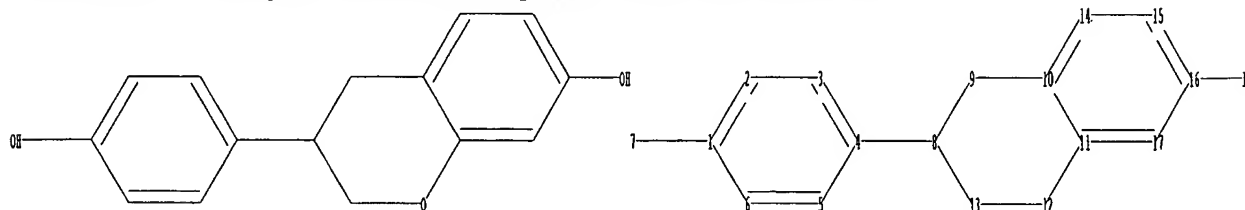
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10625934b.str



chain nodes :

```

7 18
ring nodes :
1 2 3 4 5 6 8 9 10 11 12 13 14 15 16 17
chain bonds :
1-7 4-8 16-18
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-13 9-10 10-11 10-14 11-12 11-17 12-13
14-15 15-16 16-17
exact/norm bonds :
1-7 16-18
exact bonds :
4-8 8-9 8-13 9-10 11-12 12-13
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 10-11 10-14 11-17 14-15 15-16 16-17
isolated ring systems :
containing 1 : 8 :

```

```

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:CLASS

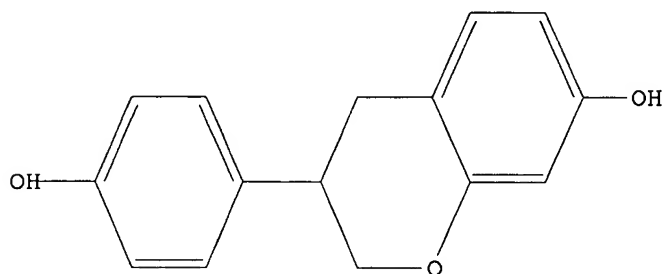
```

L5 STRUCTURE UPLOADED

=> d

L5 HAS NO ANSWERS

L5 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 15

SAMPLE SEARCH INITIATED 15:18:24 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 372 TO ITERATE

100.0% PROCESSED 372 ITERATIONS

27 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 6283 TO 8597

PROJECTED ANSWERS: 229 TO 851

L6 27 SEA SSS SAM L5

=> s 15 full

FULL SEARCH INITIATED 15:18:27 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 7120 TO ITERATE

100.0% PROCESSED 7120 ITERATIONS  
SEARCH TIME: 00.00.01

490 ANSWERS

L7 490 SEA SSS FUL L5

=> fil caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

166.94

334.55

FILE 'CAPLUS' ENTERED AT 15:18:29 ON 05 OCT 2006

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FILE COVERS 1907 - 5 Oct 2006 VOL 145 ISS 15

FILE LAST UPDATED: 4 Oct 2006 (20061004/ED)

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=> s 17

L8 935 L7

=> s 18 and composition

666114 COMPOSITION

305861 COMPOSITIONS

965659 COMPOSITION

(COMPOSITION OR COMPOSITIONS)

1422997 COMPN

576323 COMPNS

1744535 COMPN

(COMPN OR COMPNS)

2195940 COMPOSITION

(COMPOSITION OR COMPN)

L9 80 L8 AND COMPOSITION

=> s 19 and estrogen

78667 ESTROGEN

52447 ESTROGENS

90784 ESTROGEN

(ESTROGEN OR ESTROGENS)

L10 20 L9 AND ESTROGEN

=> d ibib abs hitstr tot

THE ESTIMATED COST FOR THIS REQUEST IS 102.20 U.S. DOLLARS

DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L10 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:259941 CAPLUS

DOCUMENT NUMBER: 144:34988

TITLE: Cooperative effects of isoflavones and exercise on bone and lipid metabolism in postmenopausal Japanese women: a randomized placebo-controlled trial  
AUTHOR(S): Wu, Jian; Oka, Jun; Higuchi, Mitsuru; Tabata, Izumi; Toda, Toshiya; Fujioka, Maiko; Fuku, Noriyuki; Teramoto, Takanori; Okuhira, Takenori; Ueno, Tomomi; Uchiyama, Shigeto; Urata, Kouji; Yamada, Kazuhiko; Ishimi, Yoshiko

CORPORATE SOURCE: Division of Applied Food Research, National Institute of Health and Nutrition, Tokyo, 162-8636, Japan

SOURCE: Metabolism, Clinical and Experimental (2006), 55(4), 423-433

CODEN: METAJ; ISSN: 0026-0495

PUBLISHER: Elsevier Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Cooperative effects of isoflavones and exercise on bone and lipid metabolism have been exhibited in estrogen-deficient animals; however, results from clin. trials have not been published. In this study, we determined the effects of isoflavone intake and walking and their interaction

on bone and lipid metabolism in postmenopausal women over 24 wk. The bioavailability and metabolism of isoflavones (daidzein in particular) were also examined to clarify the mechanism of their bone-protective effects in humans. One hundred twenty-eight subjects were randomly assigned to 4 groups: placebo; placebo combined with walking (3 times per wk); isoflavone intake (75 mg of isoflavones conjugates per day); and isoflavone combined with walking. The subjects were classified by equol status (producers or nonproducers) as identified using production of equol from daidzein in fecal culture. Bone mineral d. (BMD), body compn., and serum concns. of isoflavones were assessed. Serum high-d. lipoprotein cholesterol concentration significantly increased (6.1%,  $P =$

.03), and fat mass in the whole body significantly decreased ( $-4.3\%$ ,  $P = .0003$ ) from the baseline in the combined intervention group. There were no significant differences in BMD between baseline and postintervention in any of the treatment groups. However, the percent changes in BMD in equol producers were  $-0.53\%$  and  $+0.13\%$  in the sub-whole body and total hip, resp. This was significantly different compared with  $-1.35\%$  and  $-1.77\%$  for the sub-whole body and total hip, resp., in nonproducers in the isoflavone group ( $P = .049$  and  $.040$ , resp.). The mean serum equol concentration was significantly higher in equol producers than in nonproducers in the isoflavone groups, but not in the placebo group. The combination of isoflavones and exercise exhibited favorable effects on serum lipid and body composition of postmenopausal women. The findings of this study suggest that the preventive effects of isoflavones on bone loss depend on the individual's intestinal flora for equol production

IT 531-95-3, Equol

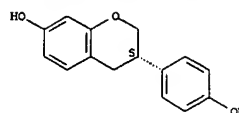
RI: BSU (Biological study, unclassified); BIOL (Biological study) (cooperative effects of isoflavones and exercise on bone and lipid metabolism in postmenopausal Japanese women)

RN 531-95-3 CAPLUS

CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L10 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:105092 CAPLUS

DOCUMENT NUMBER: 144:429684

TITLE: Postmenopausal bone mineral density in relation to soy isoflavone-metabolizing phenotypes

AUTHOR(S): Frankenfeld, Cara L.; McTiernan, Anne; Thomas, Wendy K.; LaCroix, Kristin; McVarish, Lynda; Holt, Victoria L.; Schwartz, Stephen M.; Lampe, Johanna W.

CORPORATE SOURCE: Cancer Prevention Program, Fred Hutchinson Cancer Research Center, Seattle, WA, 98109-1024, USA

SOURCE: Maturitas (2006), 53(3), 315-324

CODEN: MATUDR; ISSN: 0378-5122

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Intestinal bacterial metabolize the soy isoflavone daidzein to O-desmethylangolensin (O-DMA) or equol. Some individuals do not excrete O-DMA or equol after soy consumption, suggesting they do not harbor bacteria capable of producing these metabolites. The aim of this study was to evaluate bone mineral d. (BMD) in relation to presence of these urinary metabolites. BMD, determined by whole-body dual x-ray absorptiometry

scan, was age-adjusted and evaluated in relation to O-DMA-producer and equol-producer phenotypes in 92 postmenopausal women, aged 50-75 years. Women consumed supplemental soy foods (daidzein source) for 3 days and collected a first-void urine sample on the fourth day in order to determine metabolic phenotypes. In O-DMA producers ( $n = 76$ ) compared to O-DMA non-producers ( $n = 16$ ), greater total, leg and head BMD ( $p < 0.05$ ) were observed. Total BMD among the O-DMA producers (geometric mean =  $1.04 \text{ g/cm}^2$ ) was 6% greater than total BMD among the O-DMA non-producers (geometric mean =  $0.98 \text{ g/cm}^2$ ). Total and site-specific BMD did not differ between equol producers ( $n = 24$ ) and non-producers ( $n = 68$ ) ( $p > 0.05$ ). In exploratory analyses, among regular soy consumers, spinal BMD was 20% lower among the equol producers than non-producers, whereas, among soy non-consumers, no such difference was observed ( $p$ -interaction  $< 0.05$ ).

Among

equol producers, circulating estrone and free estradiol concns. were inversely or not associated with total BMD, whereas, among equol non-producers, these hormones were pos. associated ( $p$ -interaction  $< 0.05$ ). Our results provide evidence that intestinal bacterial composition may influence BMD in postmenopausal women. Further studies characterizing assocns. of intestinal bacterial profiles with BMD are warranted.

IT 531-95-3, Equol

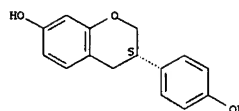
RI: BSU (Biological study, unclassified); BIOL (Biological study) (circulating estrone and free estradiol were inversely or not associated with total bone mineral d. in soy isoflavone daidzein metabolite equol producing postmenopausal woman)

RN 531-95-3 CAPLUS

CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L10 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2006 ACS ON STN

ACCESSION NUMBER: 2005:1065679 CAPLUS

DOCUMENT NUMBER: 143:38617

TITLE: Soy processing affects metabolism and disposition of dietary isoflavones in ovariectomized Balb/c mice  
AUTHOR(S): Allred, Clinton D.; Twaddle, Nathan C.; Allred, Kimberly F.; Goepfinger, Tracy S.; Churchwell, Mona I.; Ju, Young H.; Helferich, William G.; Doerge, Daniel R.

CORPORATE SOURCE: Department of Food Science and Human Nutrition, University of Illinois, Urbana-Champaign, IL, 61801, USA

SOURCE: Journal of Agricultural and Food Chemistry (2005), 53(22), 8542-8550  
CODEN: JAFCAU; ISSN: 0021-8561

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Soybean foods and dietary supplements are widely consumed for potential health benefits. Previous studies show that isoflavone-supplemented diets with equal genistein equivalent differently stimulated mammary tumor growth

in athymic mice based on the degree of soybean processing. Blood plasma pharmacokinetic anal. and metabolite identification were done in Balb/c mice fed the same diets, which contained genistin, mixed isoflavones, Novasoy, soy molasses, or soybean flour plus mixed isoflavones. Whereas the degree of soybean processing affected several parameters of isoflavone bioavailability and gut microflora metabolism of daidzein to equol, stimulation of tumor growth correlated only with plasma concns. of the aglycon genistein produced by the diets. This conclusion was consistent with the known estrogen agonist activity of genistein aglycon on mammary tumor growth. Blood plasma equol concns. inversely correlated with the degree of soybean processing. Although antagonism of genistein-stimulated tumor growth by equol could explain this result, the very low concns. of aglycon equol in plasma (12-fold lower relative to genistein) were inconsistent with any effect. The data underscore the importance of food processing, which can remove non-nutritive components from soybeans, on the pharmacokinetics and pharmacodynamics of isoflavones. Such changes in diet composition may affect circulating, and presumably target tissue, concns. of genistein aglycon, which can initiate estrogen receptor-mediated processes required for the stimulation of tumor growth in mouse models of postmenopausal breast cancer.

IT 531-95-3, Equol

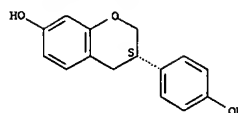
RL: BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(soybean processing affects metabolism and disposition of dietary isoflavones in ovariectomized Balb/c mice)

RN 531-95-3 CAPLUS

CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L10 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)



REFERENCE COUNT:

45

THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2006 ACS ON STN

ACCESSION NUMBER: 2004:870087 CAPLUS

DOCUMENT NUMBER: 142:33812

TITLE: Bioassay-Directed Identification of Estrogen Residues in Urine by Liquid Chromatography Electrospray Quadrupole Time-of-Flight Mass Spectrometry

AUTHOR(S): Nielsen, Michel W. F.; van Bennekom, Eric O.; Heskamp, Henri H.; van Rhijn, J. A.; Bovee, Toine F. H.; Hoogenboom, L. A. P.

CORPORATE SOURCE: RIKILT Institute of Food Safety, Wageningen, 6700 AE, Neth.

SOURCE: Analytical Chemistry (2004), 76(22), 6600-6608  
CODEN: ANCHAM; ISSN: 0003-2700

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A new approach to the search for residues of known and unknown estrogens in calf urine is presented. Following enzymic deconjugation and solid-phase extraction, a minor part of the samples is screened for estrogen activity using a recently developed rapid reporter gene bioassay. The remainder of the bioactive exts. is analyzed by gradient liquid chromatog. (LC) with, in parallel, bioactivity and mass spectrometric detection via effluent splitting toward a 96-well fraction collector and an electrospray quadrupole time-of-flight mass spectrometer (QTOFMS). The LC fractions in the 96-well plate are used for the detection of estrogen activity using the bioassay. The biogram obtained features a 20-s time resolution, and the suspect well nos. can be easily correlated with the LC/QTOFMS retention time. The mass spectral data from the thus assigned relevant parts of the chromatograms are background subtracted, followed by accurate mass measurement, element composition calcn., and identification. The method allows estrogen activity detection and identification of unknown estrogens in urine at the 1-2 ng/L level, in compliance with current residue anal. performance for hormone abuse in cattle. The applicability of this LC/bioassay/QTOFMS approach for the identification of estrogens in real-life samples is demonstrated by the anal. of several calf urine samples, and preliminary data from a pig feed sample.

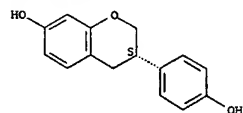
IT 531-95-3, Equol

RL: ANST (Analyte); ANST (Analytical study)  
(bioassay-directed identification of estrogen residues in urine by liquid chromatog. electrospray quadrupole time-of-flight mass spectrometry)

RN 531-95-3 CAPLUS

CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

27

THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS

L10 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT



L10 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2006 ACS ON STN

ACCESSION NUMBER: 2004:50690 CAPLUS

DOCUMENT NUMBER: 141:184593

TITLE: Synthesis, pharmacological evaluation, and structure-activity relationships of benzopyran derivatives with potent SERM activity

AUTHOR(S): Amari, Gabriele; Armani, Elisabetta; Ghirardi, Silvia; Delcanale, Maurizio; Clivelli, Maurizio; Caruso, Paola; Lorenza, Galbiati, Elisabetta; Lipreri, Milco; Rivara, Silvia; Lodola, Alessio; Mor, Marco

CORPORATE SOURCE: Chiesi Farmaceutici S.p.A., Department of Medicinal Chemistry, Parma, I-43100, Italy

SOURCE: Bioorganic & Medicinal Chemistry (2004), 12(14), 3763-3782

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:184593

AB The synthesis, binding affinity for estrogen receptor subtypes (ERa and ERb) and pharmacol. activity on rat uterus of a new class of potent ligands, characterized by a 3-phenylbenzopyran scaffold with a basic side chain in position 4, are reported. Some of these compds., endowed with very high receptor affinity, showed potent inhibition of agonist-stimulated uterine growth, with no or limited proliferative effect. Binding affinity mostly depended on the nature and position of substituents at the 3-Ph ring, while the uterine activity seems to be affected by basic chain length. Compound CH4227 showed excellent binding affinity and antagonist activity on the uterus. The docking of benzopyran derivs. explained the structure-affinity relationships observed for 3-Ph substitution: a small, hydrophobic 4'-substituent could interact with a small accessory binding cavity, while di-substitution at 4' and 3' led to some ERa selectivity. This selectivity can be ascribed to differences in amino acid composition and side chain conformation in the region accommodating the 3-Ph ring at human ERa and ERb ligand-binding domain.

IT 738601-52-OP

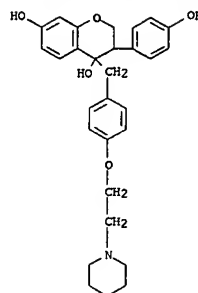
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis, pharmacol. evaluation, and structure-activity relationships of benzopyran derivs. with potent SERM activity)

RN 738601-52-0 CAPLUS

CN 2H-1-Benzopyran-4,7-diol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-[[4-[2-(1-piperidinyl)ethoxy]phenyl]methyl]- (9CI) (CA INDEX NAME)

L10 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)



REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2006 ACS ON STN

ACCESSION NUMBER: 2004:390237 CAPLUS

DOCUMENT NUMBER: 140:406680

TITLE: Preparation of aminated isoflavonoid derivatives for use in pharmaceutical compositions

INVENTOR(S): Kelly, Graham Edmund; Heaton, Andrew; Faragalla, Jane; Bremner, John

PATENT ASSIGNEE(S): Novogen Research Pty. Ltd., Australia

SOURCE: PCT Int. Appl., 60 pp.

CODEN: PIXX02

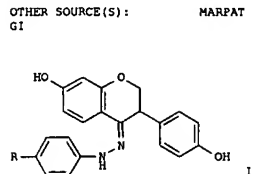
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE       |
|---|------|----------|------------------|------------|
| WO 2004039793   | A1   | 20040513 | WO 2003-AU1446   | 20031103   |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, ST, TJ, TM, TN, TR, TT, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |      |          |                  |            |
| RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                  |            |
| CA 2504653  | AA   | 20040513 | CA 2003-2504653  | 20031103   |
| AU 2003277969   | A1   | 20040525 | AU 2003-277969   | 20031103   |
| EP 1556368  | A1   | 20050727 | EP 2003-769053   | 20031103   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK   |      |          |                  |            |
| CN 1708490  | A    | 20051214 | CN 2003-80102565 | 20031103   |
| JP 2006513997   | T2   | 20060427 | JP 2004-547289   | 20031103   |
| NO 2005002524   | A    | 20050526 | NO 2005-2524     | 20050526   |
| US 2006100238   | A1   | 20060511 | US 2005-532074   | 20051128   |
| PRIORITY APPLN. INFO.:  |      |          |                  |            |
|   |      |          |                  | A 20021101 |
|   |      |          |                  | W 20031103 |
| OTHER SOURCE(S): MARPAT 140:406680  |      |          |                  |            |
| GI  |      |          |                  |            |



AB Aminated isoflavonoids, such as I [R = H, NO<sub>2</sub>, Me], were synthesized by aminating the 4-keto group of an isoflavonone. Claimed uses for these aminated isoflavonoids include treatment, prevention or amelioration of diseases associated with aberrant cell survival, aberrant cell proliferation, abnormal cellular migration, abnormal angiogenesis, abnormal estrogen/androgen balance, dysfunctional or abnormal steroid

L10 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)

genesis, degeneration including degenerative changes within blood vessel walls, inflammation and immunol. imbalance and for inducing apoptosis in cells expressing abnormal prosurvival phenotype, inhibiting migration of cells having an abnormal cellular migration phenotype, and inhibiting angiogenesis in tissue expressing aberrant angiogenic phenotype. Thus, isoflavonoid I (R = H) was prepd. by reacting dihydrodaidzein with phenylhydrazine hydrochloride using NaOAc in MeOH. The prepd. isoflavonoid derivs. were assayed for cytotoxicity against cancer cell lines, such as prostate LNCaP and DU-145 and lung carcinoma NCI-H460, for androgen inhibition, for inhibition of thromboxane synthase and COX.

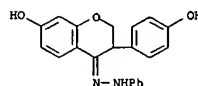
IT 688358-33-OP 688358-34-1P 688358-35-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of aminated isoflavonoid derivs. for use in pharmaceutical compns.)

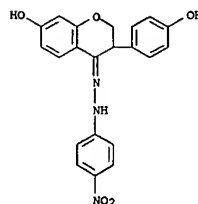
RN 688358-33-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-, phenylhydrazone (9CI) (CA INDEX NAME)



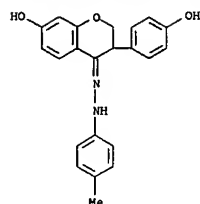
RN 688358-34-1 CAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-, (4-nitrophenyl)hydrazone (9CI) (CA INDEX NAME)

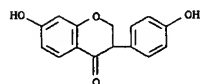


RN 688358-35-2 CAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-, (4-methylphenyl)hydrazone (9CI) (CA INDEX NAME)



IT 17238-05-0, Dihydrodaidzein  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of aminated isoflavonoid derivs. for use in pharmaceutical compns.)  
 RN 17238-05-0 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI)  
 (CA INDEX NAME)

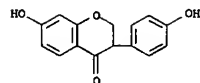


ACCESSION NUMBER: 2004:80464 CAPLUS  
 DOCUMENT NUMBER: 140:127560  
 TITLE: Food and skin products containing enantiomeric equol  
 INVENTOR(S): Setchell, Kenneth David Reginald; Cole, Sidney John  
 PATENT ASSIGNER(S): Children's Hospital Medical Center, USA; Australian Health & Nutrition Association Limited  
 SOURCE: PCT Int. Appl., 49 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 2004009035   | A2   | 20040129 | WO 2003-US23056 | 20030724 |
| WO 2004009035   | A3   | 20041104 |                 |          |
| V: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LA, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |      |          |                 |          |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
| CA 2492754  | AA   | 20040129 | CA 2003-2492754 | 20030724 |
| AU 2003259220   | A1   | 20040209 | AU 2003-259220  | 20030724 |
| US 2004147594   | A1   | 20040729 | US 2003-625989  | 20030724 |
| US 2004235758   | A1   | 20041125 | US 2003-625934  | 20030724 |
| EP 1545206  | A2   | 20050629 | EP 2003-765987  | 20030724 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK   |      |          |                 |          |
| CN 1681386  | A    | 20051012 | CN 2003-822155  | 20030724 |
| JP 200604409  | T2   | 20060209 | JP 2004-523362  | 20030724 |
| PRIORITY APPLN. INFO.: US 2002-398270P P 20020724   |      |          |                 |          |
| WO 2003-US23056 W 20030724  |      |          |                 |          |

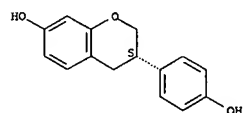
AB A composition for use in making com. food and skin products comprises S-equol, or R-equol, or mixts., including both a non-racemic mixture and a racemic mixture, of S-equol and R-equol. The composition can be used to make articles of commerce such as food supplements, pharmaceuticals, and medicaments. Racemic equol is resolved into sep. isomers by HPLC on Chiralcel OJ (Cellulose tri(4-methylbenzoate) on a 10µm silica-gel substrate). Rapid bacterial conversion of daidzein to S-equol in foods can be achieved by using a mixed culture of Bifidobacterium lactis, Lactobacillus acidophilus, Lactococcus lactis, Enterococcus faecium, Lactobacillus casei, and Lactobacillus salivarius.

IT 17238-05-0, Dihydrodaidzein  
 RL: BCP (Biochemical process); BIOL (Biological study); PROC (Process)  
 (equol formation from dietary: food and skin products containing enantiomeric equol)  
 RN 17238-05-0 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI)  
 (CA INDEX NAME)



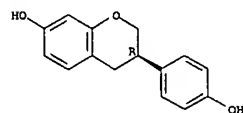
IT 531-95-3P  
 RL: ANT (Analyte); BMF (Bioindustrial manufacture); BSU (Biological study, unclassified); FFD (Food or feed use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (food and skin products containing enantiomeric equol)  
 RN 531-95-3 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

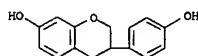


IT 221054-79-1, R-Equol  
 RL: ANT (Analyte); BSU (Biological study, unclassified); FFD (Food or feed use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
 (food and skin products containing enantiomeric equol)  
 RN 221054-79-1 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

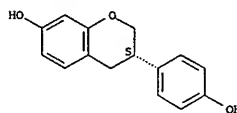


IT 94105-90-5, (±)-Equol  
 RL: BSU (Biological study, unclassified); FFD (Food or feed use); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (food and skin products containing enantiomeric equol)  
 RN 94105-90-5 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



IT 531-95-3D, conjugates  
 RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (food and skin products containing enantiomeric equol)  
 RN 531-95-3 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L10 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2006 ACS ON STN  
ACCESSION NUMBER: 2003:41482 CAPLUS  
DOCUMENT NUMBER: 138:406945  
TITLE: Antiproliferative compositions containing isoflavones  
INVENTOR(S): Helvoort, Adrianus Lambertus Bertholdus; Van Norren, Klaske; Hageman, Robert Johan Joseph; Vervilligen, Wendy Antoinette; Lansink, Mirian  
PATENT ASSIGNEE(S): Nutricia N.V., Neth.  
SOURCE: Eur. Pat. Appl., 17 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|---|------|----------|-----------------|------------|
| EP 1314438  | A1   | 20030528 | EP 2001-204495  | 20011123   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |      |          |                 |            |
| CA 2468180  | AA   | 20030530 | CA 2002-2468180 | 20021125   |
| WO 2003043658   | A1   | 20030530 | WO 2002-NL764   | 20021125   |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZH, ZW |      |          |                 |            |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZH, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |            |
| AU 2002348628   | A1   | 20030610 | AU 2002-348628  | 20021125   |
| EP 1448232  | A1   | 20040825 | EP 2002-782020  | 20021125   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK   |      |          |                 |            |
| CN 1615155  | A    | 20050511 | CN 2002-827489  | 20021125   |
| JP 2005513025   | T2   | 20050512 | JP 2003-545336  | 20021125   |
| US 2004259815   | A1   | 20041223 | US 2004-496411  | 20040521   |
| PRIORITY APPLN. INFO.:  |      |          | EP 2001-204495  | A 20011123 |
|   |      |          | WO 2002-NL764   | W 20021125 |

AB Non-estrogen-dependent hyperproliferation of cells in animals or humans can be prevented or treated by means of a pharmaceutical or nutritional composition containing a combination of 2 or more inhibitors of the G1/S phase of the cell cycle; and 2 or more inhibitors of the G2/M phase of the cell cycle; and 2 or more inhibitors of protein tyrosine kinase activity. Especially, the composition comprises 2 or more compds. selected from flavanollignans, carotenoids and isoflavone. Thus, a composition for the treatment of benign prostate hyperplasia contained soy isoflavones 30, lycopene 5, Silybum marianum 50, saw palmetto extract 320, selenium 0.10, zinc 15, copper 2, Frunus africana extract 6, soybean oil 500, and soy lecithin 200 mg/day.

IT 531-95-3, Equol  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(antiproliferative compns. containing isoflavones)

RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

L10 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2006 ACS ON STN  
ACCESSION NUMBER: 2003:14345 CAPLUS  
DOCUMENT NUMBER: 138:67083  
TITLE: Flavonoids for inhibition of estrogen activity caused by environmental hormones  
INVENTOR(S): Yamada, Koji  
PATENT ASSIGNEE(S): Sangaku Renkei Kiko Kyushu K. K., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.  
CODEN: JPOXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| JP 2003002830          | A2   | 20030108 | JP 2001-186118  | 20010620 |
| PRIORITY APPLN. INFO.: |      |          | JP 2001-186118  | 20010620 |

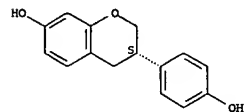
OTHER SOURCE(S): MARPAT 138:67083

AB Provided are methods using flavonoids and compns. containing flavonoids for inhibiting estrogen activity, especially those induced by environmental hormones. The flavonoid may also be a isoflavone (e.g. daidzein or genistein), flavone and flavonol (e.g. luteolin or quercetin), or their analog or derivative. Thus, tested was competitive inhibition of binding between 17 $\beta$ -estradiol and estrogen receptor by the flavonoids and other environmental hormone derived from pharmaceutical (e.g. diethylstilbestrol, tamoxifen, Mestranol, and clomiphene), coumestan (e.g. coumestrol), pesticide (e.g. chlordecone and methoxychlor), herbicide (e.g. Cyanazine and 2,4-dichlorophenol), alkylphenol (e.g. 4-nonylphenol, 4-tert-octylphenol and 4-ethylphenol), polymerizer (e.g. n-butylbenzene, benzophenone and p-nitrotoluene), plasticizer (e.g. bisphenol A, and bis-2-ethylhexyl adipate), 4-dihydroxybiphenol, 2,2,2-trichloroethanol, etc.

IT 531-95-3, Equol  
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)  
(flavonoids for inhibition of estrogen activity caused by environmental hormones)

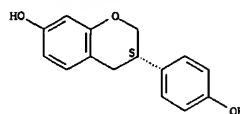
RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L10 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)

Absolute stereochemistry.



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2006 ACS ON STN  
ACCESSION NUMBER: 2001:435068 CAPLUS  
DOCUMENT NUMBER: 135:46098  
TITLE: Preparation of methylchromane or thiochromane derivatives with anti-estrogenic properties for the treatment of breast cancer  
INVENTOR(S): Jo, Jae-chon; Ahn, Koo-hyeon; Kim, Ju-su; Ho, Pil-su; Morikawa, Kazumi; Kanbe, Yoshitake; Nishimoto, Masahiro; Kim, Myung-hwa  
PATENT ASSIGNEE(S): C & C Research Laboratories, S. Korea  
SOURCE: PCT Int. Appl., 44 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|---|------|----------|-----------------|------------|
| WO 2001042237   | A1   | 20010614 | WO 2000-KR1446  | 20001213   |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |            |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |            |
| KR 2001055765   | A    | 20010704 | KR 1999-57065   | 19991213   |
| AU 2001020284   | A5   | 20010618 | AU 2001-20284   | 20001213   |
| EP 1240156  | A1   | 20020918 | EP 2000-993541  | 20001213   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |      |          |                 |            |
| JP 2003516402   | T2   | 20030513 | JP 2001-543536  | 20001213   |
| US 2003013756   | A1   | 20030116 | US 2002-149750  | 20020613   |
| US 6555571  | B2   | 20030429 |                 |            |
| PRIORITY APPLN. INFO.:  |      |          | KR 1999-57065   | A 19991213 |
|   |      |          | WO 2000-KR1446  | W 20001213 |

OTHER SOURCE(S): MARPAT 135:46098  
G1

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention relates to 3-methylchromane or -thiochromane derivs. I, and their pharmaceutically acceptable salts, stereoisomers or hydrates [wherein: X = O, S; R1 = H, metal; m = 2-14]. It also relates to anti-estrogenic pharmaceutical compns. which comprise the compds. as active components. I exhibit good antiestrogenic activity without substantial agonistic effects, even when administered orally. I are useful for treatment of estrogen-related diseases, particularly breast cancer. Four specific examples were prepared and claimed. For instance, chromanone precursor II was converted to invention compound III in 6 steps: (1) methylation at the 3-position with MeI; (2) reduction and cis-allylation at the carbonyl group; (3) coupling of the allyl group with Et 2-(7,7,8,8,8-pentafluorooctyl)dec-9-enoate; (4) hydrogenation of the allyl double bond; (5) deprotection of the

L10 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)  
methoxymethyl ethers; and (6) hydrolysis of the ester. At an oral dose of  
10 mg/kg in ovariectomized mice, III gave 85.1% inhibition of  
17 $\beta$ -estradiol benzoate-induced uterine wt. gain, vs. only 41.7%  
inhibition using the known antiestrogen ZM189154.

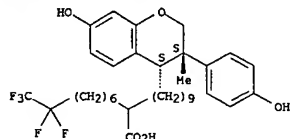
IT 344466-68-8P 344466-69-9P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);  
BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of anti-estrogenic methylchromane or thiochromane derivs.

for  
treatment of breast cancer)

RN 344466-68-8 CAPLUS

CN 2H-1-Benzopyran-4-undecanoic acid, 3,4-dihydro-7-hydroxy-3-(4-  
hydroxyphenyl)-3-methyl- $\alpha$ -(7,7,8,8,8-pentafluorooctyl)-,  
(3R,4R)-rel- (9CI) (CA INDEX NAME)

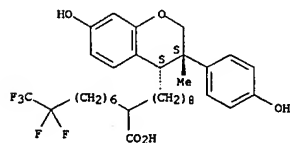
Relative stereochemistry.



RN 344466-69-9 CAPLUS

CN 2H-1-Benzopyran-4-decanoic acid, 3,4-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-  
3-methyl- $\alpha$ -(7,7,8,8,8-pentafluorooctyl)-, (3R,4R)-rel- (9CI) (CA  
INDEX NAME)

Relative stereochemistry.



IT 344466-81-5P 344466-84-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation of anti-estrogenic methylchromane or thiochromane derivs.

for  
treatment of breast cancer)

RN 344466-81-5 CAPLUS

CN 2H-1-Benzopyran-4-undecanoic acid, 3,4-dihydro-7-hydroxy-3-(4-  
hydroxyphenyl)-3-methyl- $\alpha$ -(7,7,8,8,8-pentafluorooctyl)-, ethyl  
ester, (3R,4R)-rel- (9CI) (CA INDEX NAME)

L10 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2006 ACS ON STN

ACCESSION NUMBER: 2001:435067 CAPLUS

DOCUMENT NUMBER: 135:46097

TITLE: Preparation of metal salts of methylchromane or  
thiochromane derivatives with anti-estrogenic  
properties for the treatment of breast cancer  
INVENTOR(S): Jo, Jae-chon; Park, Sung-dae; Lim, Hyun-suk; Ahn,  
Sung-oh; Morikawa, Kazumi; Kanbe, Yoshitake;  
Nishimoto, Masahiro; Kim, Myung-hwa  
C & C Research Laboratories, S. Korea  
PCT Int. Appl., 49 pp.  
CODEN: PIXXD2

SOURCE: Patent  
DOCUMENT TYPE: English  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

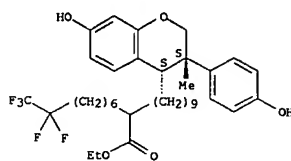
| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 2001042236   | A1   | 20010614 | WO 2000-KR1445  | 20001213 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AH, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |          |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
| KR 2001055766   | A    | 20010704 | KR 1999-57066   | 19991213 |
| EP 1240155  | A1   | 20020918 | EP 2000-983540  | 20001213 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, NO, MK, CY, AL, TR   |      |          |                 |          |
| JP 200316401  | T2   | 20030513 | JP 2001-543535  | 20001213 |
| US 2003092695   | A1   | 20030515 | US 2002-149754  | 20020613 |
| PRIORITY APPLN. INFO.: KR 1999-57066 A 19991213<br>WO 2000-KR1445 W 20001213  |      |          |                 |          |

OTHER SOURCE(S): MARPAT 135:46097  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention relates to metal salts of 3-methyl-chromane or -thiochromane  
derivs., specifically I, and their pharmaceutically acceptable salts,  
stereoisomers or hydrates [wherein: X = O, S; R1 = metal; m = 2-14; n =  
2-7]. It also relates to anti-estrogenic pharmaceutical compns.  
which comprise the compds. as active components. I exhibit good  
antiestrogenic activity without substantial agonistic effects, even when  
administered orally. Moreover, I exhibit highly improved solubility I are  
useful for treatment of estrogen-related diseases, particularly  
breast cancer. Three specific examples (all sodium salts) were prepared and  
claimed. For instance, thiochromanone precursor II was converted to  
invention compound III in 10 steps: (1) alkylation of the ketone with an  
 $\alpha$ -silylated octyne; (2) reduction of the resulting alc. and alkyne  
moieties to give cis stereochem.; (3) desilylation; (4) mesylation of the  
resulting alc.; (5) conversion of the mesylate to an iodide; (6) coupling  
of the iodide with the malonate ester CF<sub>3</sub>CF<sub>2</sub>(CH<sub>2</sub>)<sub>3</sub>CH(CO<sub>2</sub>Et)<sub>2</sub>; (7)  
saponification

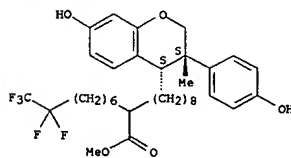
L10 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)  
Relative stereochemistry.



RN 344466-84-8 CAPLUS

CN 2H-1-Benzopyran-4-decanoic acid, 3,4-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-  
3-methyl- $\alpha$ -(7,7,8,8,8-pentafluorooctyl)-, methyl ester, (3R,4R)-rel-  
(9CI) (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)  
of the diesters; (8) monodecarboxylation of the diacid; (9) demethylation  
of the methoxy groups; and (10) conversion to the Na salt. At an oral  
dose of 10 mg/kg in ovariectomized mice, the Na salt III gave 74%  
inhibition of 17 $\beta$ -estradiol benzoate-induced uterine wt. gain, vs.  
79% for the corresponding free acid, and only 69% for the known steroidal  
antiestrogen ICI182,780. III was markedly more sol. than either the free  
acid or the comparison compd. in artificial intestinal juice. III was  
also water-sol. to nearly the same extent, whereas the other 2 compds.  
were essentially insol.

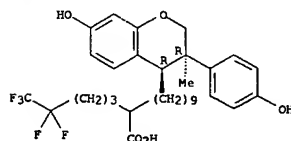
IT 344466-22-4F  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);  
BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of metal salts of methylchromane or thiochromane derivs.

with  
anti-estrogenic properties for treatment of breast cancer)

RN 344466-22-4 CAPLUS

CN 2H-1-Benzopyran-4-undecanoic acid, 3,4-dihydro-7-hydroxy-3-(4-  
hydroxyphenyl)-3-methyl- $\alpha$ -(4,4,5,5,5-pentafluoropentyl)-, monosodium  
salt, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● Na

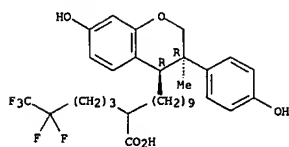
IT 252945-99-6P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation of metal salts of methylchromane or thiochromane derivs.

with  
anti-estrogenic properties for treatment of breast cancer)

RN 252945-99-6 CAPLUS

CN 2H-1-Benzopyran-4-undecanoic acid, 3,4-dihydro-7-hydroxy-3-(4-  
hydroxyphenyl)-3-methyl- $\alpha$ -(4,4,5,5,5-pentafluoropentyl)-,  
(3R,4R)-rel- (9CI) (CA INDEX NAME)

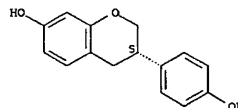
Relative stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2001:424978 CAPLUS  
DOCUMENT NUMBER: 135:357308  
TITLE: Animal models impacted by phytoestrogens in commercial chow: Implications for pathways influenced by hormones  
AUTHOR(S): Brown, Nadine M.; Setchell, Kenneth D. R.  
CORPORATE SOURCE: Clinical Mass Spectrometry, Children's Hospital Medical Center, Cincinnati, OH, 45227, USA  
SOURCE: Laboratory Investigation (2001), 81(5), 735-747  
CODEN: LAINAW; ISSN: 0023-6837  
PUBLISHER: Lippincott Williams & Wilkins  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Most com. rodent diets are formulated with soybean protein and deliver large daily doses of isoflavones to animals throughout their lifespan, including the in utero period. Isoflavones are bioavailable and com. rodent diets universally used by animal facilities lead to very high steady-state blood serum isoflavone concns. in adult rats (2613±873 ng/mL) and mice (2338±531 ng/mL), exceeding the endogenous estrogen levels 30,000- to 60,000-fold. The maternal-fetal intrauterine transfer of isoflavones was demonstrated in animals fed standard Purina 5001 soybean-containing diet. The newborn rat pups had high serum isoflavone levels (540±174 ng/mL) that were maintained throughout the suckling period by passage of isoflavones into the maternal milk. The findings have profound implications for all animal expts., including multigenerational studies and studies of transgenic animals, especially when biochem. or morphol. end-points are influenced by the hormonal or nonhormonal properties of phytoestrogens. The phytoestrogens have the potential to modulate genotypic and phenotypic expression in general and all investigators should be vigilant to the phytoestrogen composition of com. rodent diets because there is a history of potent biol. effects in larger animals and in humans from high circulating isoflavone concns.  
IT 531-95-3, Equol  
RL: BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PROC (Process); USES (Uses) (dietary soybean isoflavone phytoestrogens in com. laboratory rodent chow feeds impact on rat and mouse models, pathways influenced by hormones and exptl. outcomes)  
RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 96 THERE ARE 96 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2001:50474 CAPLUS  
DOCUMENT NUMBER: 134:110467  
TITLE: Method and compositions using phytosterols and phytoestrogens for inhibiting biosynthesis or bioactivity of endogenous steroid sex hormones in humans  
INVENTOR(S): Hughes, Claude L., Jr.; Magoffin, Denis A.  
PATENT ASSIGNEE(S): Cedars-Sinai Medical Center, USA  
SOURCE: PCT Int. Appl., 25 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| WO 2001003687 | A2   | 20010118 | WO 2000-US18909 | 20000712 |
| WO 2001003687 | A3   | 20010809 |                 |          |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, CA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-353004 A 19990713

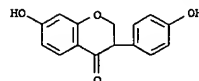
AB A method is disclosed for inhibiting biosynthesis or bioactivity of endogenous steroid sex hormones in both men and women involving the administration of a combination of phytosterol(s) and phytoestrogen(s) to inhibit enzymic activity in the steroidogenic biosynthetic pathway that converts steroid progestins and androgens to more potent steroidal hormones, like estradiol and dihydrotestosterone. Also disclosed is a pharmaceutical composition useful for inhibiting biosynthesis or bioactivity of endogenous steroid sex hormones in humans. The pharmaceutical composition is formulated in a delivery system to deliver a dose of 50-250 mg of a phytosterol(s), e.g. campesterol, stigmasterol, fucosterol, stigmasterol, stigmasterol, or stigmasteradienone, or a derivative or conjugate of any of these, and 20-150 mg of a phytoestrogen(s), e.g. a lignan, isoflavone, flavone, or coumestan compound(s).

IT 17238-05-0, Dihydrodaldzein 21554-71-2, Dihydrogenistein 304892-20-4  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

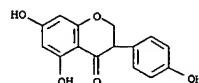
(phytosterols and phytoestrogens for inhibiting biosynthesis or bioactivity of endogenous steroid sex hormones in humans)

RN 17238-05-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

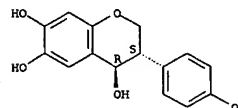


RN 21554-71-2 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 304892-20-4 CAPLUS  
CN 2H-1-Benzopyran-4,6,7-triol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

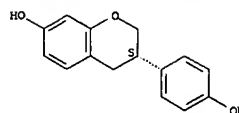


L10 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1999:130584 CAPLUS  
DOCUMENT NUMBER: 130:200924  
TITLE: Compositions and treatments to reduce side effects of administration of androgenic testosterone precursors  
PATENT ASSIGNEE(S): Weider Nutrition International, Inc., USA  
SOURCE: PCT Int. Appl., 34 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND  | DATE     | APPLICATION NO. | DATE       |
|------------------------|---|----------|-----------------|------------|
| WO 9907381             | A1  | 19990219 | WO 1998-US16679 | 19980811   |
| W:                     | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  |          |                 |            |
| RW:                    | GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  |          |                 |            |
| AU 9887798             | A1  | 19990301 | AU 1998-87798   | 19980811   |
| PRIORITY APPLN. INFO.: |   |          | US 1997-55346P  | P 19970811 |
|                        |   |          | WO 1998-US16679 | V 19980811 |
| AB                     | A method for reducing potential adverse effects of androgenic testosterone precursors by interfering with production or action of testosterone and estrogen metabolites by nutrient combinations is described. Although androgenic testosterone precursors themselves have little or no toxicity, there is the potential for their metabolites, estradiol and dihydrotestosterone, to enhance or cause hormone-responsive illnesses such as breast or prostatic cancer, benign prostatic hyperplasia, or hirsutism or acne in women. The use of the nutrient combinations reduces the formation or action of estradiol and dihydrotestosterone, thereby reducing potential adverse effects from increased production of these hormones following androgenic testosterone precursor administration. This may be accomplished without negating the effects of testosterone on muscle anabolism. The nutrient combinations include androstenedione, DHEA, pregnenolone, androstenediols, norandrostenedione and norandrostenediols, and natural products which reduce estrogen effects in the estrogen-responsive tissues, and substances to reduce formation of dihydrotestosterone from testosterone in prostate tissue. Thus, a composition contained androstenedione 100, green tea extract 50, and zinc arginate 10 mg. |          |                 |            |
| IT                     | 531-95-3, Equol<br>RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (compos. for reduction of side effects of administration of androgenic testosterone precursors)  |          |                 |            |
| RN                     | 531-95-3 CAPLUS   |          |                 |            |
| CN                     | 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)   |          |                 |            |

Absolute stereochemistry.

L10 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



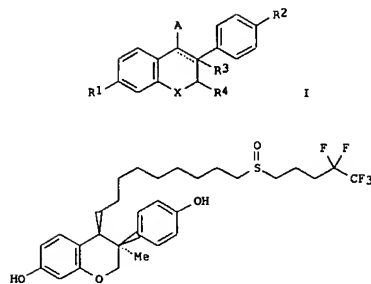
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1998:402432 CAPLUS  
DOCUMENT NUMBER: 129:81667  
TITLE: Novel benzopyran and thiochroman derivatives useful as antiestrogens  
INVENTOR(S): Jo, Jae Chon; Park, Sung Dae; Lim, Hyun Suk; Kim, Ju Su; Kim, Sung Jin; Morikawa, Kazumi; Kanbe, Yoshitake; Nishimoto, Masahiro; Kim, Myung-hwa  
C & C Research Laboratories, S. Korea  
PATENT ASSIGNEE(S): PCT Int. Appl., 125 pp.  
SOURCE: CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND   | DATE     | APPLICATION NO. | DATE       |
|------------------------|--|----------|-----------------|------------|
| WO 9825916             | A1   | 19980618 | WO 1997-KR265   | 19971213   |
| W:                     | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |          |                 |            |
| RW:                    | GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG   |          |                 |            |
| AU 9854134             | A1   | 19980703 | AU 1998-54134   | 19971213   |
| AU 722089              | B2   | 20000720 |                 |            |
| EP 944613              | A1   | 19990929 | EP 1997-947971  | 19971213   |
| EP 944613              | B1   | 20021009 |                 |            |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IS, FI   |          |                 |            |
| CN 1244863             | A  | 20000216 | CN 1997-181472  | 19971213   |
| CN 1120162             | B  | 20030903 |                 |            |
| JP 2000507620          | T2   | 20000620 | JP 1998-526521  | 19971213   |
| JP 3251946             | B2   | 20020128 |                 |            |
| AT 225782              | E  | 20021015 | AT 1997-947971  | 19971213   |
| ES 2185054             | T3   | 20030416 | ES 1997-947971  | 19971213   |
| CA 2275166             | C  | 20030722 | CA 1997-2275166 | 19971213   |
| CA 2275166             | AA   | 19980618 |                 |            |
| US 6153768             | A  | 20001128 | US 1999-319616  | 19990608   |
| PRIORITY APPLN. INFO.: |  |          | KR 1996-65301   | A 19961213 |
|                        |  |          | KR 1997-26915   | A 19970624 |
|                        |  |          | WO 1997-KR265   | W 19971213 |

OTHER SOURCE(S): MARPAT 129:81667  
G1

L10 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



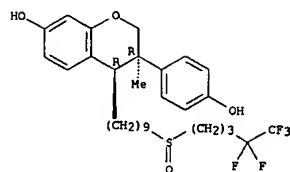
AB The invention relates to novel benzopyran derivs. having anti-estrogenic activity. More specifically, the invention relates to novel benzopyran and thiochroman derivs. I and pharmaceutically acceptable salts thereof [in which the dashed line = optional pi bond; R1, R2 = H, OH, or OR; R = acyl or alkyl; R3 = H, alkyl, haloalkyl, or null when R3 is absent; R4 = H or alkyl; A = (CH2)mSOmR5, C6H4O(CH2)mSOmR5, C6H4O(CH2)mNR6R7, (CH2)mSOm(CH2)pNR6R7; R5, R6, and R7 = H, alkyl, haloalkyl, alkenyl, or haloalkenyl; or NR6R7 = 4- to 8-membered heterocyclic ring which can be substituted with R5; X = O, S, or NR8; R8 = H or alkyl; m = 2-15; n = 0-2; and p = 0-4]. Also disclosed are a preparation process, and antiestrogenic pharmaceutical compns. which contains I as an active component. Examples include over 80 syntheses and 4 bioassays. For example, compound II was prepared by a 7-step sequence involving: (1) double-O-methoxymethylation and 3-methylation of 7-hydroxy-3-(4-hydroxyphenyl)-2,3-dihydro-4H-benzopyran-4-one (66t), (2) 4-alkynylation with HC.tpbond.C(CH2)7OSiMe2CMe3 (100t), (3) desilylation (33t), O-tosylation (88t), thioetherification (97t), deprotection of OH groups (66t), and S-oxidation with NaIO4 (73t). The antiestrogenic and MCF-7 cell growth-inhibiting activities of II were comparable or superior to the related antiestrogen ZM-189154, and the side effect of decreased bone mineral d. in II was not only reduced but to some extent reversed.

IT 209324-87-8P  
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of benzopyran and thiochroman derivs. as antiestrogens)

RN 209324-87-8 CAPLUS

CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[9-[(4,4,5,5,5-pentafluoropentyl)sulfinyl]nonyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

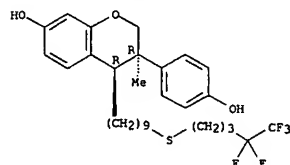
Relative stereochemistry.



IT 209324-86-7P 209324-92-5P 209325-16-6P  
 209325-20-2P 209325-27-9P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (preparation of benzopyran and thiochroman derivs. as antiestrogens)

RN 209324-86-7 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[9-[(4,4,5,5,5-pentafluoropentyl)thio]nonyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

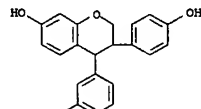
Relative stereochemistry.



RN 209324-92-5 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[8-[(4,4,5,5,5-pentafluoropentyl)thio]octyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 209325-27-9 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-[3-[[5-[(4,4,5,5,5-pentafluoropentyl)thio]pentyl]oxy]phenyl]- (9CI) (CA INDEX NAME)

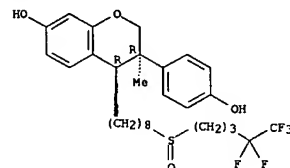


F<sub>3</sub>C-CF<sub>2</sub>-(CH<sub>2</sub>)<sub>3</sub>-S-(CH<sub>2</sub>)<sub>5</sub>-O

IT 209324-93-6P 209324-94-7P 209324-99-2P  
 209325-17-7P 209325-18-8P 209325-21-3P  
 209325-28-0P 209325-29-1P 209325-59-7P  
 209325-60-0P 209325-61-1P 209325-62-2P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of benzopyran and thiochroman derivs. as antiestrogens)

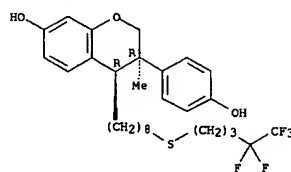
RN 209324-93-6 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[8-[(4,4,5,5,5-pentafluoropentyl)sulfinyl]octyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



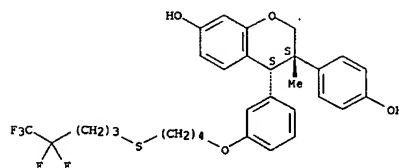
RN 209324-94-7 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[9-[(4,4,5,5,5-pentafluoropentyl)sulfonyl]nonyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



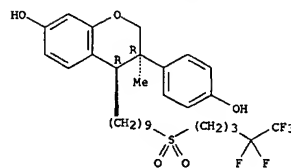
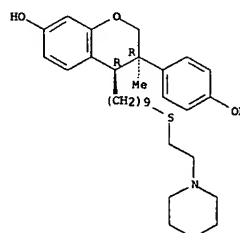
RN 209325-16-6 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[3-[[4-[(4,4,5,5,5-pentafluoropentyl)thio]butoxy]phenyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

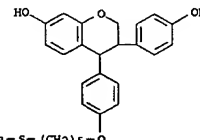


RN 209325-20-2 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[9-[[2-(1-piperidinyl)ethyl]thio]nonyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



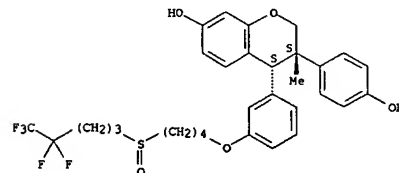
RN 209324-99-2 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-[4-[[5-[(4,4,5,5,5-pentafluoropentyl)thio]pentyl]oxy]phenyl]- (9CI) (CA INDEX NAME)



F<sub>3</sub>C-CF<sub>2</sub>-(CH<sub>2</sub>)<sub>3</sub>-S-(CH<sub>2</sub>)<sub>5</sub>-O

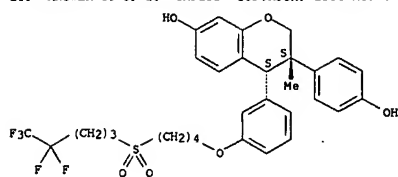
RN 209325-17-7 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[3-[[4-[(4,4,5,5,5-pentafluoropentyl)sulfinyl]butoxy]phenyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



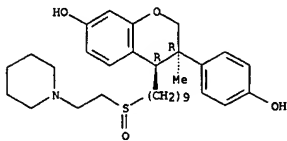
RN 209325-18-8 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[3-[[4-[(4,4,5,5,5-pentafluoropentyl)sulfonyl]butoxy]phenyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

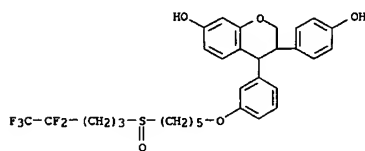


RN 209325-21-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[9-[[2-(1-piperidinyl)ethyl]sulfinyl]nonyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

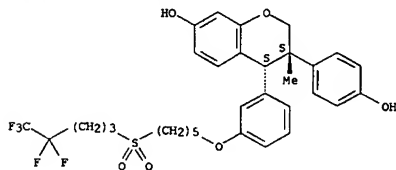


RN 209325-28-0 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-[3-[[5-[(4,4,5,5,5-pentafluoropentyl)sulfinyl]pentyl]oxy]phenyl]- (9CI) (CA INDEX NAME)



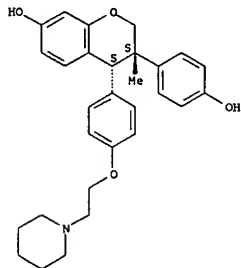
RN 209325-29-1 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-[3-[[5-[(4,4,5,5,5-pentafluoropentyl)sulfinyl]pentyl]oxy]phenyl]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

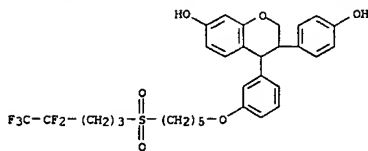
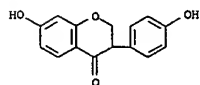


RN 209325-62-2 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[4-[2-(1-piperidinyl)ethoxy]phenyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

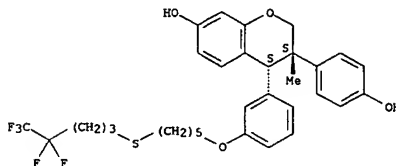


IT 17238-05-0  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(starting material; preparation of benzopyran and thiochroman derivs. as antiestrogens)  
RN 17238-05-0 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI)  
(CA INDEX NAME)



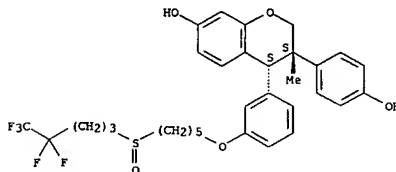
RN 209325-59-7 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[3-[[5-[(4,4,5,5,5-pentafluoropentyl)sulfinyl]pentyl]oxy]phenyl]-, (3R,4R)-rel- (9CI)  
(CA INDEX NAME)

Relative stereochemistry.



RN 209325-60-0 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[3-[[5-[(4,4,5,5,5-pentafluoropentyl)sulfinyl]pentyl]oxy]phenyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 209325-61-1 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[3-[[5-[(4,4,5,5,5-pentafluoropentyl)sulfinyl]pentyl]oxy]phenyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

REFERENCE COUNT: 3  
THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT



L10 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1998:344623 CAPLUS  
DOCUMENT NUMBER: 129:45313  
TITLE: Composition and treatment for persistent reproductive transition symptoms  
INVENTOR(S): Wurtman, Judith J.; Lepene, Lewis D.  
PATENT ASSIGNEE(S): Internutria, Inc., USA  
SOURCE: PCT Int. Appl., 31 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND   | DATE     | APPLICATION NO. | DATE       |
|------------------------|--|----------|-----------------|------------|
| WO 9821946             | A1   | 19980528 | WO 1997-US20957 | 19971118   |
| W:                     | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW |          |                 |            |
| RW:                    | GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG   |          |                 |            |
| AU 9852606             | A1   | 19980610 | AU 1998-52606   | 19971118   |
| PRIORITY APPLN. INFO.: |  |          | US 1996-751590  | A 19961118 |
|                        |  |          | WO 1997-US20957 | W 19971118 |

AB Somatic, emotional, metabolic, and cognitive symptoms of premenopausal and/or menopausal disorders are relieved by oral or topical administration of  $\geq 1$  phytoestrogen; a mixture of remedial carbohydrates including  $\geq 1$  simple carbohydrate,  $\geq 1$  complex carbohydrate, and starch; and choline or a source of choline. If the choline source is phosphatidylcholine, then the composition is substantially free of added  $\beta$ -sitosterol. Subjects receiving this therapy experience inhibition of breakthrough bleeding, elimination of the need for concurrent hormone replacement therapy, stimulation of osteoblast activity, and inhibition of hardening of the vasculature, along with an improvement in mood, decreased water retention, decreased irritability, and increased ability to concentrate or remain mentally alert. Thus, a

powder

for reconstitution with water into a beverage contained soy proteins 60, isoflavones 45 (comprising genistein 27 and daidzein 18), carbohydrate mix 50 (comprising dextrose 18.5, maltodextrin 30, and starch 1.5), and choline 1 g.

IT 531-95-3, Equol

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

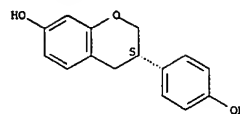
(composition and treatment for persistent reproductive transition symptoms)

RN 531-95-3 CAPLUS

CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L10 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1997:498330 CAPLUS  
DOCUMENT NUMBER: 127:160868  
TITLE: Exposure of infants to phytoestrogens from soy-based infant formula  
AUTHOR(S): Setchell, Kenneth D. R.; Zimmer-Nechemias, Linda; Cai, Jinnan; Heubl, James E.  
CORPORATE SOURCE: Clinical Mass Spectrometry Center, Children's Hospital Medical Center, Cincinnati, OH, 45229, USA  
SOURCE: Lancet (1997) 350(9070), 23-27  
CODEN: LANCAD; ISSN: 0140-6736  
PUBLISHER: Lancet  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The isoflavones genistein, daidzein, and their glycosides, found in high concns. in soybeans and soy-protein foods, may have beneficial effects in the prevention or treatment of many hormone-dependent diseases. Because these bioactive phytoestrogens possess a wide range of hormonal and nonhormonal activities, it has been suggested that adverse effects may occur in infants fed soy-based formulas. To evaluate the extent of infant exposure to phytoestrogens from soy formula, the isoflavone compn. of 25 randomly selected samples from five major brands of com. available soy-based infant formulas were analyzed, and the plasma concns. of genistein and daidzein, and the intestinally derived metabolite, equol, were compared in 4-mo-old infants fed exclusively soy-based infant formula (n=7), cow-milk formula (n=7), or human breast-milk (n=7). All of the soy formulas contained mainly glycosides of genistein and daidzein, and the total isoflavone content was similar among the five formulas analyzed and was related to the proportion of soy isolate used in their manufacture. From the concns. of isoflavones in these formulas (means 32-47  $\mu$ g/mL), the typical daily volume of milk consumed, and average body-weight, a 4-mo-old

infant fed soy formula would be exposed to 28-47 per day, or about 4.5-8.0 mg/kg body-weight per day, of total isoflavones. Mean (SD) plasma concns. of genistein and daidzein in the seven infants fed soy-based formulas were 684 (443) ng/mL and 295 (60) ng/mL, resp., which was significantly greater ( $p < 0.05$ ) than in the infants fed either cow-milk formulas (3.2 [0.7] and 2.1 [0.3] ng/mL), or human breast-milk (2.8 [0.7] and 1.4 [0.1] ng/mL), and an order of magnitude higher per bodyweight than typical plasma concns. of adults consuming soy foods. The daily exposure of infants to isoflavones in soy infant-formulas is 6-11 fold higher on a bodyweight basis than the dose that has hormonal effects in adults consuming soy foods. Circulating concns. of isoflavones in the seven infants fed soy-based formula were 13,000-22,000 times higher than plasma estradiol concns. in early life, and may be sufficient to exert biol. effects, whereas the contribution of isoflavones from breast-milk and cow-milk is negligible.

IT 531-95-3, Equol

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)

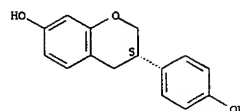
(exposure of infants to phytoestrogens from soy-based infant formula)

RN 531-95-3 CAPLUS

CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

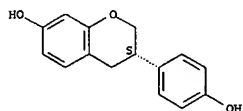
Absolute stereochemistry.

L10 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



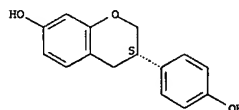
L10 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1989:51493 CAPLUS  
 DOCUMENT NUMBER: 110:51493  
 TITLE: Identification of phytoestrogens in the urine of male dogs  
 AUTHOR(S): Juniewicz, P. E.; Pallante Morell, S.; Moser, A.; Ewing, L. L.  
 CORPORATE SOURCE: Dep. Popul. Dyn., Johns Hopkins Sch. Hyg. Public Health, Baltimore, MD, 21205, USA  
 SOURCE: Journal of Steroid Biochemistry (1988), 31(6), 987-94  
 CODEN: JSTBBK; ISSN: 0022-4731  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Thermospray-mass spectrometry and gas chromatog./mass spectrometry were used to identify the phytoestrogens daidzein, equol, formononetin, and genistein in HPLC purified fractions of urine obtained from male beagles. Using the same techniques the presence of daidzein and genistein was confirmed in the com. diet fed to these same dogs. Using the immature rat uterine cytosol estrogen receptor assay, relative binding affinities of 0.08, 1.1, <0.01, and 3.9% were obtained for daidzein, equol, formononetin, and genistein, resp. when compared to estradiol (100%). In conclusion, phytoestrogens are present in urine of male beagles. Moreover, the com. diet fed to these dogs contains isoflavones which can be converted to equol by intestinal microflora. The need for investigations of phytoestrogens (e.g. equol) excreted into the urine daily and its relationship to the incidence and severity of benign prostatic hyperplasia in the dog is indicated.  
 IT 531-95-3, Equol  
 RL: BIOL (Biological study) (of urine, of male dog)  
 RN 531-95-3 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

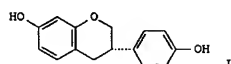


L10 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1987:175077 CAPLUS  
 DOCUMENT NUMBER: 106:175077  
 TITLE: Determination of urinary lignans and phytoestrogen metabolites, potential antiestrogens and anticarcinogens, in urine of women on various habitual diets  
 AUTHOR(S): Adlercreutz, H.; Fotsis, T.; Bannwart, C.; Wahala, K.; Makela, T.; Brunow, G.; Hase, T.  
 CORPORATE SOURCE: Meilahti Hosp., Univ. Helsinki, Helsinki, SF-00290, Finland  
 SOURCE: Journal of Steroid Biochemistry (1986), 25(5B), 791-7  
 CODEN: JSTBBK; ISSN: 0022-4731  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Five compds., the lignans enterolactone [78473-71-9] and enterodiol [80226-00-2], and the isoflavonic phytoestrogen metabolites daidzein [486-66-8], equol [531-95-3], and O-desmethyldaidzein [21255-69-6], were measured by GC-MS in the urine of 5 groups of women (total number 53). The members of 3 dietary groups (omnivores, lactovegetarians, and macrobiotics) were living in Boston and 2 groups in Helsinki (omnivores and lactovegetarians). Measurements were carried out in 94 72-h samples. The highest mean excretion of the most abundant compound, enterolactone, was found in the macrobiotic group and the lowest by the omnivores. Total mean 24-h excretion of enterolactone was 17,680 nmol in the macrobiotics, 4170 nmol in the Boston lactovegetarians, 3650 nmol in the Helsinki lactovegetarians, 2460 nmol in the Helsinki omnivores, and 2050 nmol in the Boston omnivores. The other diphenols followed approx. the same pattern. In an earlier study, the lowest excretion of enterolactone (1040 nmol/24 h) was found in a group of postmenopausal apparently healthy breast cancer patients living in Boston. It is concluded that further studies are necessary to elucidate the possible role of these compds. in cancer and other diseases. However, the evidence obtained seems to justify the conclusion that these compds. may be among the dietary factors affording protection against hormone-dependent cancers in vegetarians and semivegetarians.  
 IT 531-95-3, Equol  
 RL: BIOL (Biological study) (of urine, of women, diet composition effect on)  
 RN 531-95-3 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

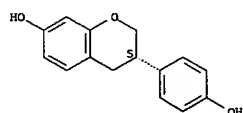


L10 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1985:19261 CAPLUS  
 DOCUMENT NUMBER: 102:19261  
 TITLE: Characterization of the estrogenic properties of a nonsteroidal estrogen, equol, extracted from urine of pregnant macaques  
 AUTHOR(S): Thompson, M. A.; Lasley, B. L.; Rideout, B. A.; Kasman, L. H.  
 CORPORATE SOURCE: Res. Dep., San Diego Zoo, San Diego, CA, USA  
 SOURCE: Biology of Reproduction (1984), 31(4), 705-13  
 CODEN: BIREBV; ISSN: 0006-3363  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



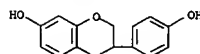
AB The estrogenic activity of equol (I) [531-95-3] from macaque urine, (1)-I, [66036-38-2], and 17β-estradiol (E2) [50-28-2] was compared in vitro and in vivo. Relative binding affinity of I for rat uterine receptor was 1% that of E2, and the dissociation rate of I from the receptor was very high. I was ineffective in stimulating rat uterine weight gain and possessed limited ability to increase progesterone [57-83-0] receptor. Uterine nuclear receptors, after doses of I sufficient to produce depletion and replenishment of cytosol estrogen receptor, were not measurable by exchange assay. No antiestrogenic activity of I could be demonstrated. The weak potency and lack of antiestrogenic activity of I are difficult to reconcile with its ability to induce ovine infertility. Species differences at some level other than classical estrogen receptor as defined in the rat model may be responsible for variability in the impact of I.  
 IT 531-95-3 94105-90-5  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (estrogenic activity of)  
 RN 531-95-3 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 94105-90-5 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

L10 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L12 ANSWER 30 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2004:328763 CAPLUS  
DOCUMENT NUMBER: 141:388569  
TITLE: Effects of Human Intestinal Flora on Plasma and Caecal Isoflavones, and Effects of Isoflavones on the Composition and Metabolism of Flora in Human Flora-Associated (HFA) Mice  
AUTHOR(S): Tamura, Motoi; Hirayama, Kazuhiro; Itoh, Kikui; Shinohara, Kazuki  
CORPORATE SOURCE: National Food Research Institute, the University of Tokyo, Tokyo, 113-8657, Japan  
SOURCE: Microbial Ecology in Health and Disease (2004), 16(1), 18-22  
CODEN: MEHDE6; ISSN: 0891-060X  
PUBLISHER: Taylor & Francis Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

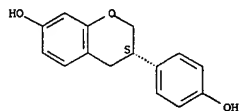
AB Much attention has focused on the isoflavones present in soybeans. In this study, we investigated the influence of human intestinal flora on plasma and caecal isoflavones using human flora-associated (HFA) mice. The

GI (germ-free-isoflavone) and HI (HFA-isoflavone) mice were administered daidzein and genistein and the GC (germ-free control) and HC (HFA control) mice were administered solvent over a 4-day period. The plasma and caecal isoflavones were analyzed by high-performance liquid chromatog. (HPLC). Caecal bacterial  $\beta$ -glucosidase and  $\beta$ -glucuronidase activities were also measured. The composition of intestinal flora was analyzed. The total amts. of daidzein and genistein in the cecum were significantly higher in the GI mice than in the HI mice. Equol was detected only in the plasma and caecal contents of the HI mice. The caecal  $\beta$ -glucosidase activity was significantly lower in the HFA mice administered isoflavones ( $p < 0.05$ ). Isoflavone administration led to a significant increase in fecal clostridia in the feces of the HI mice. The present study suggests that the human intestinal flora plays an important role in the metabolism and absorption of isoflavones. The HFA mice employed in this study may be useful tools for studying the role of human intestinal flora on the effects of dietary isoflavones on the host in vivo.

IT 531-95-3, Equol  
RL: BSU (Biological study, unclassified); BIOL (Biological study) (equol was detected in plasma and cecum following administration of daidzein, genistein produced in HFA mouse implying importance of intestinal flora in metabolism and adsorption of dietary isoflavones)

RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 31 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2004:80464 CAPLUS  
DOCUMENT NUMBER: 140:127560  
TITLE: Food and skin products containing enantiomeric equol  
INVENTOR(S): Setchell, Kenneth David Reginald; Cole, Sidney John  
PATENT ASSIGNEE(S): Children's Hospital Medical Center, USA; Australian Health & Nutrition Association Limited  
SOURCE: PCT Int. Appl., 49 pp.  
CODEN: PIXXD2  
Patent  
DOCUMENT TYPE: English  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND   | DATE     | APPLICATION NO. | DATE       |
|------------------------|--|----------|-----------------|------------|
| WO 2004009035          | A2   | 20040129 | WO 2003-US23056 | 20030724   |
| WO 2004009035          | A3   | 20041104 |                 |            |
| W:                     | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |          |                 |            |
| RW:                    | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |                 |            |
| CA 2492754             | AA   | 20040129 | CA 2003-2492754 | 20030724   |
| AU 2003259220          | A1   | 20040209 | AU 2003-259220  | 20030724   |
| US 2004147594          | A1   | 20040729 | US 2003-625989  | 20030724   |
| US 2004235758          | A1   | 20041125 | US 2003-625934  | 20030724   |
| EP 1545206             | A2   | 20050629 | EP 2003-765987  | 20030724   |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK   |          |                 |            |
| CN 1681386             | A  | 20051012 | CN 2003-822155  | 20030724   |
| JP 2006504409          | T2   | 20060209 | JP 2004-523362  | 20030724   |
| PRIORITY APPLN. INFO.: |  |          | US 2002-398270P | P 20020724 |
|                        |  |          | WO 2003-US23056 | W 20030724 |

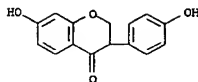
AB A composition for use in making com. food and skin products comprises 5-equol, or R-equol, or mixts., including both a non-racemic mixture and a racemic mixture, of 5-equol and R-equol. The composition can be used to make articles of commerce such as food supplements, pharmaceuticals, and medicaments. Racemic equol is resolved into sep. isomers by HPLC on Chiralcel OJ (cellulose tris(4-methylbenzoate) on a 10 $\mu$ m silica-gel substrate). Rapid bacterial conversion of daidzein to 5-equol in foods can be achieved by using a mixed culture of Bifidobacterium lactis, Lactobacillus acidophilus, Lactococcus lactis, Enterococcus faecium, Lactobacillus casei, and Lactobacillus salivarius.

IT 17238-05-0, Dihydrodaidzein  
RL: BCP (Biochemical process); BIOL (Biological study); PROC (Process) (equol formation from dietary; food and skin products containing enantiomeric equol)

RN 17238-05-0 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 30 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

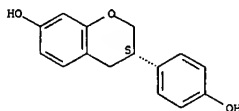
L12 ANSWER 31 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



IT 531-95-3P  
RL: ANT (Analyte); BMF (Bioindustrial manufacture); BSU (Biological study, unclassified); FFD (Food or feed use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (food and skin products containing enantiomeric equol)

RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

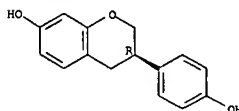
Absolute stereochemistry.



IT 221054-79-1, R-Equol  
RL: ANT (Analyte); BSU (Biological study, unclassified); FFD (Food or feed use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses) (food and skin products containing enantiomeric equol)

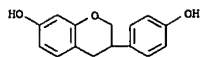
RN 221054-79-1 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



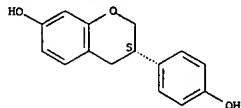
IT 94105-90-5, (±)-Equol  
RL: BSU (Biological study, unclassified); FFD (Food or feed use); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (food and skin products containing enantiomeric equol)

RN 94105-90-5 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



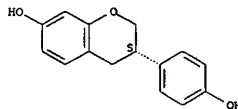
IT 531-95-3D, conjugates  
 RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (food and skin products containing enantiomeric equol)  
 RN 531-95-3 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



ACCESSION NUMBER: 2004:49362 CAPLUS  
 DOCUMENT NUMBER: 140:302751  
 TITLE: Role of intestinal flora on the metabolism, absorption, and biological activity of dietary flavonoids  
 AUTHOR(S): Tamura, Motoi; Hirayama, Kazuhiro; Itoh, Kikui  
 CORPORATE SOURCE: National Food Research Institute, Tsukuba, 305-8642, Japan  
 SOURCE: Bioscience and Microflora (2003), 22(4), 125-131  
 CODEN: BIMIFM; ISSN: 1342-1441  
 PUBLISHER: Japan Bifidus Foundation  
 DOCUMENT TYPE: Journal; General Review  
 LANGUAGE: English  
 AB A review. Much attention has been focused on flavonoids because of their beneficial effects on human health. Flavonoids are the most abundant dietary polyphenols. Quercetin is one of the major flavonoids and is contained in many foods. Soybean and soy foods are rich sources of isoflavones. Recent research has shown that they are beneficial to human health. The two major sites of flavonoid metabolism are the liver and the intestinal flora. Intestinal flora play an important role in the absorption and metabolism of flavonoids. Many of the flavonoids including quercetin occur in food in the form of O-glycosides, with D-glucose as the most common sugar residue. With respect to the bioavailability of flavonoid glycosides, intestinal flora are known to have an important role in hydrolysis. Colonic flora are known to catalyze the breakdown of flavonoids. It was also found that suppressing the breakdown of quercetin by intestinal flora is important for achieving higher concns. of quercetin in the plasma. Soy isoflavone aglycon is absorbed faster and in higher amts. than glucosides in humans. Some dietary components are also known to affect the absorption of isoflavones. Human metabolism and excretion of isoflavones following the consumption of soy products show considerable variation. The bioavailability of soybean isoflavones to women is dependant on gut microflora. Equol is a metabolite of daidzein produced by intestinal flora. Equol has many biol. activities relates to human health, and its production might be affected by dietary composition and intestinal floral composition. To achieve higher production of equol from daidzein in the gut, control of the metabolic activity of intestinal flora might be of importance.  
 IT 531-95-3, Equol  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (role of intestinal flora on the metabolism, absorption, and biol. activity of dietary flavonoids)  
 RN 531-95-3 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

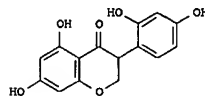
Absolute stereochemistry.



REFERENCE COUNT: 75 THERE ARE 75 CITED REFERENCES AVAILABLE FOR THIS

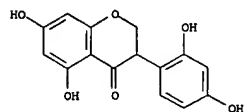
ACCESSION NUMBER: 2003:931137 CAPLUS  
 DOCUMENT NUMBER: 140:8789  
 TITLE: Whitening compositions comprising melanin biosynthesis inhibiting compounds  
 INVENTOR(S): Lee, Choong Hwan; Kho, Yung Hee; Oh, Tae Kwang; Baek, Seung Hwa; Yoon, Suk Ran; Han, Gyoong Hee; Chung, Dae Kyun; Park, Jeong Woo; Chung, Sung Kyun; Lee, Jung Min  
 PATENT ASSIGNEE(S): Korea Research Institute of Bioscience and Biotechnology, S. Korea; et al.  
 SOURCE: PCT Int. Appl. 32 pp.  
 DOCUMENT TYPE: CODEN: PIXXD2  
 LANGUAGE: Patent  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 2003097004   | A1   | 20031127 | WO 2003-KR974   | 20030516 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |      |          |                 |          |
| RW: GR, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
| KR 2003091049   | A    | 20031201 | KR 2003-30497   | 20030514 |
| AU 2003230431   | A1   | 20031202 | AU 2003-230431  | 20030516 |
| PRIORITY APPLN. INFO.: KR 2002-28298 A 20020522   |      |          |                 |          |
| WO 2003-KR974 W 20030516  |      |          |                 |          |
| OTHER SOURCE(S): MARPAT 140:8789  |      |          |                 |          |
| GI  |      |          |                 |          |



AB Cosmetic and pharmaceutical skin-whitening compns. are provided comprising, as an active ingredient, melanogenesis inhibitory components and preferably exts. of *Lespedeza cyrtotrya* Miq having melanogenesis inhibitory activity and/or compds. isolated and refined therefrom. Ext. of *L. cyrtotrya* Miq are prepared by extraction with first organic solvent, such as acetone, acetonitrile, DMF, dioxane, etc., and fractionation of the extract obtained with the second organic solvent, e.g., propionitrile, benzonitrile, carbon tetrachloride, chloroform, dichloromethane, etc. The *L. cyrtotrya* extract showed no toxicity in mice and was formulated into tablets, ointments, injections, and a cosmetic preparation. For example, compound I, isolated from *L. cyrtotrya* Miq extract, showed melanogenesis inhibitory activity in human melanocyte of 96.7% and 87% at concns. of 0.1 and 1

L12 ANSWER 33 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
IT 28812-38-6P  
RL: COS (Cosmetic use); PAC (Pharmacological activity); PRP (Properties);  
PUR (Purification or recovery); SPN (Synthetic preparation); THU  
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
(Uses)  
(skin-whitening comps. comprising Lespedeza cyrtotrya extract  
having melanogenesis inhibitory components)  
RN 28812-38-6 CAPLUS  
CN 4H-1-Benzopyran-4-one, 3-(2,4-dihydroxyphenyl)-2,3-dihydro-5,7-dihydroxy-  
(9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

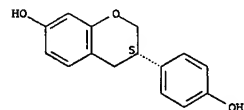
L12 ANSWER 34 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2003:855730 CAPLUS  
DOCUMENT NUMBER: 139:345931  
TITLE: Oil body associated protein compositions  
with soy foodstuffs, and methods of anticholesteremic  
use thereof for reducing the risk of cardiovascular  
disease  
INVENTOR(S): Bringe, Neal A.; Karunanandaa, Kanthasamy  
PATENT ASSIGNEE(S): Monsanto Technology LLC, USA  
SOURCE: PCT Int. Appl., 75 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND   | DATE     | APPLICATION NO.  | DATE     |
|------------------------|--|----------|--|----------|
| WO 2003088749          | A1   | 20031030 | WO 2003-US12009  | 20030417 |
| W:                     | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |          |  |          |
| RW:                    | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |  |          |
| CA 2482464             | AA   | 20031030 | CA 2003-2482464  | 20030417 |
| AU 2003221982          | A1   | 20031103 | AU 2003-221982   | 20030417 |
| EP 1494536             | A1   | 20050112 | EP 2003-718445   | 20030417 |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK   |          |  |          |
| BR 2003009421          | A  | 20050201 | BR 2003-9421   | 20030417 |
| JP 2005523007          | T2   | 20050804 | JP 2003-585507   | 20030417 |
| CN 1662142             | A  | 20050831 | CN 2003-814015   | 20030417 |
| NO 2004004575          | A  | 20050117 | NO 2004-4575   | 20041025 |
| US 2005214346          | A1   | 20050929 | US 2005-511669   | 20050523 |
| PRIORITY APPLN. INFO.: |  |          | US 2002-373460P P 20020418<br>WO 2003-US12009 W 20030417 |          |

AB Comps. and methods for reducing hypercholesterolemia and, accordingly, the risk of cardiovascular disease, are provided. Such comps. may comprise isolated oil body associated proteins, such as oleosins from many plant sources, and mammalian egg yolk lipoproteins and milk fat globule membrane proteins. Addnl. provided are foodstuffs, such as soy flour, soy grit, soy meal, soy flakes, soy milk powder, soy protein concentrate, soy protein isolate, to which one or more oil body associated proteins have been added. In certain embodiments of the invention, the soy protein isolate is a high mol. weight non-digestible fraction of a soy material treated with a protease. The preferred soy proteins are  $\beta$ -conglycinin and glycinin. It is believed that the oil body associated proteins prevent the digestion of bioactive peptides present in soy material and thereby synergistically enhance the hypocholesterolemic activity of the composition. The comps. employed in the invention may further comprise additive comps., for example, a saponin, an isoflavone, a phospholipid, a carbohydrate substantially resistant to digestion, or a combination thereof. The methods and comps. of the invention may be used to lower cholesterol and other lipid levels in subjects to achieve a reduction in the risk of cardiovascular disease.

L12 ANSWER 34 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
IT 531-95-3D, Equol, naturally occurring glucosides and glucoside  
conjugates  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(isoflavones; oil body associated protein comps. with soy  
foodstuffs, and methods of anticholesteremic use thereof for reducing  
risk of cardiovascular disease)  
RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA  
INDEX NAME)

Absolute stereochemistry.



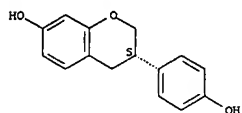
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 35 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2003:414182 CAPLUS  
DOCUMENT NUMBER: 138:406945  
TITLE: Antiproliferative compositions containing  
isoflavones  
INVENTOR(S): Helvoort, Adrianus Lambertus Bertholdus; Van Norren,  
Klaske; Hageman, Robert Johan Joseph; Vervilligen,  
Wendy Antoinette; Lansink, Mirian  
Nutricia N.V., Neth.  
Eur. Pat. Appl., 17 pp.  
CODEN: EPXKDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND   | DATE     | APPLICATION NO.                                       | DATE     |
|------------------------|--|----------|---|----------|
| EP 1314438             | A1   | 20030528 | EP 2001-204495  | 20011123 |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |          |   |          |
| CA 2468180             | AA   | 20030530 | CA 2002-2468180                                       | 20021125 |
| WO 2003043658          | A1   | 20030530 | WO 2002-NL764   | 20021125 |
| W:                     | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |          |   |          |
| RW:                    | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |   |          |
| AU 2002348628          | A1   | 20030610 | AU 2002-348628  | 20021125 |
| EP 1448232             | A1   | 20040825 | EP 2002-782020  | 20021125 |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK   |          |   |          |
| CN 1615155             | A  | 20050511 | CN 2002-827489  | 20021125 |
| JP 2005513025          | T2   | 20050512 | JP 2003-545336  | 20021125 |
| US 2004259815          | A1   | 20041223 | US 2004-496411  | 20040521 |
| PRIORITY APPLN. INFO.: |  |          | EP 2001-204495 A 20011123<br>WO 2002-NL764 W 20021125 |          |

AB Non-estrogen-dependent hyperproliferation of cells in animals or humans can be prevented or treated by means of a pharmaceutical or nutritional composition containing a combination of 2 or more inhibitors of the G1/S phase of the cell cycle; and 2 or more inhibitors of the G2/M phase of the cell cycle; and 2 or more inhibitors of protein tyrosine kinase activity. Especially, the composition comprises 2 or more comps. selected from flavanolinagans, carotenoids and isoflavones. Thus, a composition for the treatment of benign prostate hyperplasia contained soy isoflavones 30, lycopene 5, Silybum marianum 50, saw palmetto extract 320, selenium 0.10, zinc 15, copper 2, Prunus africana extract 6, soybean oil 500, and soy lecithin 200 mg/day.

IT 531-95-3, Equol  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(antiproliferative comps. containing isoflavones)  
RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA  
INDEX NAME)



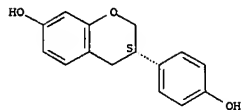
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 36 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2003:376630 CAPLUS  
DOCUMENT NUMBER: 138:374200  
TITLE: Chemoprotectant compositions containing isoflavones  
INVENTOR(S): Shapiro, Alla  
PATENT ASSIGNEE(S): USA  
SOURCE: PCT Int. Appl., 23 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 2003039537   | A1   | 20030515 | WO 2002-US35437 | 20021105 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |          |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |          |

PRIORITY APPLN. INFO.: US 2001-330976P P 20011105  
OTHER SOURCE(S): MARPAT 138:374200  
AB A non-toxic and effective isoflavone chemoprotectant agent for treating or preventing effects and damage due to the administration of chemotherapeutic agents in the treatment of cancer and other conditions and diseases is described. The isoflavone can be administered orally, s.c., i.m., i.v., transdermally, intranasally, or rectally. The isoflavone is administered chronically, and/or before, during and/or after administration of the chemotherapeutic agent. For example, in patients with breast cancer undergoing treatment with chemotherapeutic agents that cause severe cardiac toxicity, administration of genistein (0.1-1000 mg/kg) prior and during chemotherapy resulted in decreased cardiotoxicity, allowing an increase in drug intensity, shortened delay in drug administration between doses of the chemotherapeutic agent, and reduced side effects.  
IT 531-95-3, Equal  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(isoflavone-containing cytoprotectant compns. for decreasing side effects of chemotherapeutic agents)  
RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



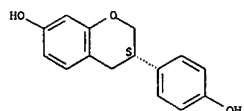
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 37 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2003:42120 CAPLUS  
DOCUMENT NUMBER: 138:95616  
TITLE: Composition comprising soy and use thereof in the prevention and/or treatment of various diseases  
INVENTOR(S): Hoie, Lars Henrik  
PATENT ASSIGNEE(S): Nutri Pharma Danmark Holding A/S, Den.  
SOURCE: PCT Int. Appl., 165 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 2003004039   | A2   | 20030116 | WO 2002-1B2587  | 20020703 |
| WO 2003004039   | A3   | 20040603 |                 |          |
| WO 2003004039   | C2   | 20050526 |                 |          |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW |      |          |                 |          |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, BG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
| AU 2002345255   | A1   | 20030121 | AU 2002-345255  | 20020703 |
| EP 1443946  | A2   | 20040811 | EP 2002-743476  | 20020703 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK   |      |          |                 |          |
| US 2004234631   | A1   | 20041125 | US 2004-482537  | 20040629 |
| PRIORITY APPLN. INFO.: EP 2001-610069 A 20010703<br>WO 2002-1B2587 W 20020703   |      |          |                 |          |

AB The invention concerns soy protein, phytoestrogens, phospholipids, and dietary fibers and compns. thereof suitable for preventing, treating and/or alleviating cardiovascular diseases such as hypercholesterolemia, hypertriglyceridemia, hyperlipidemia, arteriosclerosis, hypertension and related cardiovascular diseases, for preventing and/or treating type 2 diabetes and/or the metabolic syndrome, and for preventing, treating and/or alleviating pulmonary diseases.  
IT 531-95-3, Equal  
RL: FFD (Food or feed use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(composition comprising soy and use thereof in the prevention and/or treatment of various diseases)  
RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

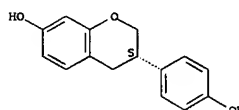


L12 ANSWER 38 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2003:14345 CAPLUS  
 DOCUMENT NUMBER: 138:67083  
 TITLE: Flavonoids for inhibition of estrogen activity caused by environmental hormones  
 INVENTOR(S): Yamada, Koji  
 PATENT ASSIGNEE(S): Sangaku Renkei Kiko Kyushu K. K., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.  
 CODEN: JXXXXF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.                             | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| JP 2003002830                          | A2   | 20030108 | JP 2001-186118  | 20010620 |
| PRIORITY APPL. INFO.: MARPAT 138:67083 |      |          | JP 2001-186118  | 20010620 |

OTHER SOURCE(S):  
 AB Provided are methods using flavonoids and compns. containing flavonoids for inhibiting estrogen activity, especially those induced by environmental hormones. The flavonoid may also be a isoflavone (e.g. daidzein or genistein), flavone and flavanol (e.g. luteolin or quercetin), or their analog or derivative. Thus, tested was competitive inhibition of binding between 17 $\beta$ -estradiol and estrogen receptor by the flavonoids and other environmental hormone derived from pharmaceutical (e.g. diethylstilbestrol, tamoxifen, Mestranol, and clomiphene), coumestan (e.g. coumestrol), pesticide (e.g. chlordane and methoxychlor), herbicide (e.g. Cyanazine and 2,4-dichlorophenol), alkylphenol (e.g. 4-nonylphenol, 4-tert-octylphenol and 4-ethylphenol), polymerizer (e.g. n-butylbenzene, benzophenone and p-nitrotoluene), plasticizer (e.g. bisphenol A, and bis-2-ethylhexyl adipate), 4-dihydroxybiphenol, 2,2,2-trichloroethanol, etc.  
 IT 531-95-3, Equol  
 RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)  
 (Flavonoids for inhibition of estrogen activity caused by environmental hormones)  
 RN 531-95-3 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



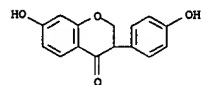
ACCESSION NUMBER: 2002:965546 CAPLUS  
 DOCUMENT NUMBER: 137:357909  
 TITLE: Use of isoflavonoids in cosmetic or dermatological preparations for the prophylaxis or treatment of sensitive skin  
 INVENTOR(S): Gallinat, Stefan; Venzke, Kirsten; Herpens, Andreas; Biergiesser, Helga; Schoenrock, Uwe; Staeb, Franz  
 PATENT ASSIGNEE(S): Beiersdorf AG, Germany  
 SOURCE: Ger. Offen., 18 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO.  | DATE     |
|---------------|------|----------|------------------|----------|
| DE 10122342   | A1   | 20021114 | DE 2001-10122342 | 20010509 |
| WO 2002089757 | A2   | 20021114 | WO 2002-EP4624   | 20020426 |
| WO 2002089757 | A3   | 20030313 |                  |          |

W: JP, US  
 RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR

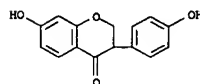
PRIORITY APPL. INFO.: DE 2001-10122342 A 20010509  
 AB The invention relates to the use of deriva. of the isoflavones selected from the group: ipriflavone, formononetin, ononin, 4'-isopropyl-isoflavone, monohydroxy isoflavone, monohydroxy dihydroisoflavone, monohydroxy tetrahydroisoflavone, o-desmethylangolensin, dihydro daidzein, tetrahydrodaidzein, dihydrogenistein, 2-Dehydro-O-Desmethyl-Angolensin, Dehydroequol, 4-Hydroxy-7-Glucose-Isoflavone and 5-Hydroxy-7,4'-Dimethoxy-Isoflavone in cosmetic or dermatol. preps. for the treatment and prophylaxis of the symptoms of inflammatory and/or itching skin conditions in sensitive skin and in changes to the DNA synthesis and/or DNA repair in the skin. The compns. can contain further active substances, e.g.  $\alpha$ -liponic acid, Coenzyme Q10. Thus an O/W cream contained (weight/weight): glyceryl stearate 4.00; PEG-40-stearate 1.00; cetyl alc.

3.00: caprylic/capric triglyceride 5.00; isoflavones 0.20; tocopherol 0.1; trisodium EDTA 0.1; preservative q.s.; carbomer 3.00; sodium hydroxyde (45%) q.s.; glycerin 5.00; perfume q.s.; water to 100.  
 IT 17238-05-0, Dihydro daidzein 21554-71-2, Dihydrogenistein 153516-59-7  
 RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (use of isoflavonoids in cosmetic or dermatol. preps. for prophylaxis or treatment of sensitive skin)  
 RN 17238-05-0 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

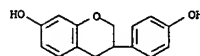


RN 21554-71-2 CAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)  
 RN 153516-59-7 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-, dihydro deriv. (9CI) (CA INDEX NAME)  
 CH 1  
 CRN 17238-05-0  
 CHF C15 H12 O4



IT 474795-59-0  
 RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (use of isoflavonoids in cosmetic or dermatol. preps. for prophylaxis or treatment of sensitive skin in combination with other active substances)  
 RN 474795-59-0 CAPLUS  
 CN 1-Benzopyran-7-ol, 3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)  
 CH 1  
 CRN 94105-90-5  
 CHF C15 H14 O3



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 40 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:849389 CAPLUS

DOCUMENT NUMBER: 137:329286

TITLE: Use of isoflavonoids in cosmetic or dermatological preparations for the prophylaxis or treatment of sensitive skin

INVENTOR(S): Biergiesser, Helga; Doering, Thomas; Gallinat, Stefan; Kolbe, Ludger; Venzke, Kirsten; Staeb, Franz

PATENT ASSIGNEE(S): Beiersdorf AG, Germany

SOURCE: PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| WO 2002087517 | A2   | 20021107 | WO 2002-EP4625  | 20020426 |
| WO 2002087517 | A3   | 20030227 |                 |          |

W: JP, US

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR

| PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE     |
|-------------|------|----------|------------------|----------|
| DE 10121375 | A1   | 20021107 | DE 2001-10121375 | 20010502 |
| EP 1392239  | A2   | 20040303 | EP 2002-766639   | 20020426 |

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR

PRIORITY APPLN. INFO.: DE 2001-10121375 A 20010502

WO 2002-EP4625 W 20020426

AB The invention relates to the use of derivs. of the isoflavones selected from the group: genistein, genistin, daidzein, daidzin, biochanin A, glycitein, glycitin, santal, orobol, pratensein, prunetin and/or equol, in cosmetic or dermatol. preps. for the treatment and prophylaxis of the symptoms of inflammatory and/or itching skin conditions in sensitive skin and in changes to the DNA synthesis and/or DNA repair in the skin. The compns. can contain further active substances, e.g. e-liponic acid, Coenzyme Q10. Thus an O/W cream contained (weight/weight): glyceryl stearate 4.00; PEG-40-stearate 1.00; cetyl alc.

3.00; caprylic/capric triglyceride 5.00; isoflavones 0.20; tocopherol 0.1; trisodium EDTA 0.1; preservative q.s.; carbomer 3.00; sodium hydroxyde (45t) q.s.; glycerin 5.00; perfume q.s.; water to 100.

IT 531-95-3, Equol

RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(use of isoflavonoids in cosmetic or dermatol. preps. for prophylaxis or treatment of sensitive skin)

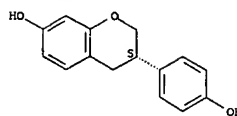
RN 531-95-3 CAPLUS

CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L12 ANSWER 40 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)



L12 ANSWER 41 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:736111 CAPLUS

DOCUMENT NUMBER: 137:242178

TITLE: Isoflavone compounds for inhibition of endothelial cell adhesion molecules and treatment of restenosis and other cardiovascular conditions

INVENTOR(S): Husband, Alan; Kelly, Graham Edmund

PATENT ASSIGNEE(S): Novogen Research Pty. Ltd., Australia

SOURCE: PCT Int. Appl., 100 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| WO 2002074307 | A1   | 20020926 | WO 2002-AU288   | 20020315 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| EP 1368024 | A1   | 20031210 | EP 2002-707999  | 20020315 |

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| JP 2004529907 | T2   | 20040930 | JP 2002-573014  | 20020315 |
| US 2005119301 | A1   | 20050602 | US 2003-471668  | 20020315 |
| AU 2006200292 | A1   | 20060216 | AU 2006-200292  | 20060123 |

PRIORITY APPLN. INFO.: AU 2001-3770 A 20010316

AU 2001-5926 A 20010626

AU 2002-242455 A3 20020315

WO 2002-AU288 W 20020315

OTHER SOURCE(S): MARPAT 137:242178

AB A method is provided for inhibiting expression or activity of an adhesion mol. associated with an endothelial cell by contacting the adhesion mol. or endothelial cell with one or more isoflavone compds. or derivs. thereof. Also provided are a method of preventing or reducing the risk of restenosis after angioplasty, and a method for the treatment or prophylaxis of atherosclerosis, coronary artery diseases, other cardiovascular diseases, and inflammatory diseases mediated by adhesion mols. The invention further provides pharmaceutical compns. useful in these methods, as well as methods for the manufacture of such medicaments.

IT 17238-05-0 21554-71-2 94105-90-5

168207-15-6 168207-16-7 328406-44-6

328406-47-9 442150-42-7 442150-43-8

442150-61-0

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

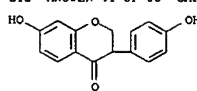
(isoflavone compds. for inhibition of endothelial cell adhesion mols. and treatment of restenosis and other cardiovascular conditions)

RN 17238-05-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

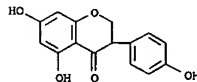
L12 ANSWER 41 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)



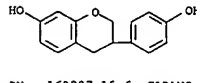
RN 21554-71-2 CAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 94105-90-5 CAPLUS

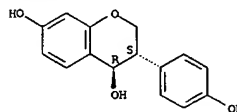
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 168207-15-6 CAPLUS

CN 2H-1-Benzopyran-4,7-diol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

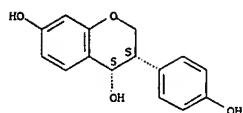


RN 168207-16-7 CAPLUS

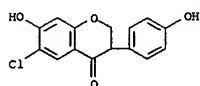
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Relative stereochemistry.

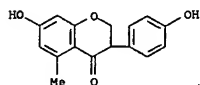




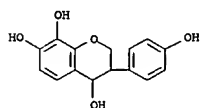
RN 328406-44-6 CAPLUS  
CN 4H-1-Benzopyran-4-one, 6-chloro-2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME),



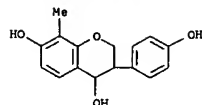
RN 328406-47-9 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-5-methyl- (9CI) (CA INDEX NAME)



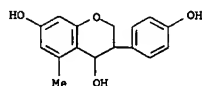
RN 442150-42-7 CAPLUS  
CN 2H-1-Benzopyran-4,7,8-triol, 3,4-dihydro-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 442150-43-8 CAPLUS  
CN 2H-1-Benzopyran-4,7,8-triol, 3,4-dihydro-3-(4-hydroxyphenyl)-8-methyl- (9CI) (CA INDEX NAME)



RN 442150-61-0 CAPLUS  
CN 2H-1-Benzopyran-4,7-diol, 3,4-dihydro-3-(4-hydroxyphenyl)-5-methyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2002:675876 CAPLUS  
DOCUMENT NUMBER: 137:210988  
TITLE: Use of natural EGFR inhibitors to prevent side effects due to retinoid therapy, soaps, and other stimuli that activate the epidermal growth receptor  
INVENTOR(S): Kang, Sewon; Fisher, Gary J.; Voorhees, John J.  
PATENT ASSIGNEE(S): The Regents of the University of Michigan, USA  
SOURCE: PCT Int. Appl., 26 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

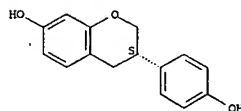
| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 2002067988   | A2   | 20020906 | WO 2002-US6175  | 20020227 |
| WO 2002067988   | A3   | 20030724 |                 |          |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW |      |          |                 |          |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
| CA 2439408  | AA   | 20020906 | CA 2002-2439408 | 20020227 |
| US 2002137693   | A1   | 20020926 | US 2002-85978   | 20020227 |
| US 6638543  | B2   | 20031028 |                 |          |
| EP 1370294  | A2   | 20031217 | EP 2002-725038  | 20020227 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |      |          |                 |          |
| JP 2005506285   | T2   | 20050303 | JP 2002-567353  | 20020227 |
| BR 2002007663   | A    | 20051025 | BR 2002-7663    | 20020227 |
| US 2004033207   | A1   | 20040219 | US 2003-639160  | 20030812 |
| PRIORITY APPLN. INFO.:  |      |          |                 |          |
| US 2001-271894P P 20010227  |      |          |                 |          |
| US 2002-85978 A3 20020227   |      |          |                 |          |
| WO 2002-US6175 W 20020227   |      |          |                 |          |

AB Many human conditions, often skin conditions, are treated topically or orally with a retinoid such as retinoic acid or acitretin, which treatment often has the side effect of dry, irritated, and/or peeling skin. The use of soaps, detergents, chemical irritants, and such can also cause these same side effects. These side effects can be reduced or eliminated by the topical administration of an inhibitor, especially a natural inhibitor, of the epidermal growth factor receptor (EGFR), administered concomitantly with the retinoid, sep. from the retinoid (such as on an as-needed basis), or both. Administration of the two together is facilitated by a composition suitable for topical application and comprising both retinoid and a natural EGFR inhibitor. Preferred natural inhibitors are genistein and other isoflavones extracted from natural occurring substances, or simple derivs. of such substances.

IT 531-95-3, Equol  
AL: PAC (Pharmacological activity): THU (Therapeutic use): BIOL (Biological study): USES (Uses)  
(Use of natural EGFR inhibitors to prevent side effects due to retinoid therapy, soaps, and other stimuli that activate EGFR)

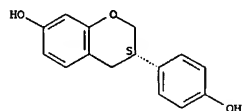
RN 531-95-3 CAPLUS

Absolute stereochemistry.



L12 ANSWER 43 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2002:596226 CAPLUS  
 DOCUMENT NUMBER: 137:278379  
 TITLE: Effects of rice starch-isoflavone diet or potato starch-isoflavone diet on plasma isoflavone, plasma lipids, cecal enzyme activity, and composition of fecal microflora in adult mice  
 AUTHOR(S): Tamura, Motoi; Hirayama, Kazuhiro; Itoh, Kikujir; Suzuki, Hiramitsu; Shinohara, Kazuki  
 CORPORATE SOURCE: National Food Research Institute, Tsukuba, 305-8642, Japan  
 SOURCE: Journal of Nutritional Science and Vitaminology (2002), 48(3), 225-229  
 CODEN: JNSVA5; ISSN: 0301-4800  
 PUBLISHER: Center for Academic Publications Japan  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The effects of rice starch-isoflavone or potato starch-isoflavone diets on plasma concentration of isoflavones, plasma lipids, cecal enzyme activity, and intestinal microflora were studied. Male 15-wk-old mice were fed a rice-starch-based or potato-starch-based diet supplemented with isoflavones for 4 wk, and plasma samples, cecal contents, and feces were collected individually. Plasma equol concentration was significantly higher in the potato-isoflavone diet group than in the rice-isoflavone diet group, but no significant difference was observed in plasma daidzein or genistein concns. Plasma total cholesterol concentration was higher in the potato-isoflavone diet group, but no significant difference was observed in plasma triglyceride concentration. Both cecal  $\beta$ -glucuronidase and  $\beta$ -glucosidase activities were significantly higher in the rice-isoflavone diet group. The number of bifidobacteria was significantly higher in the potato-isoflavone diet group. These results indicate that different types of starches have different influences on plasma isoflavones and suggest that the influences might be through the change of host physiol. and/or the metabolism and composition of intestinal microflora.  
 IT 531-95-3, Equol  
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (effects of rice starch-isoflavone diet or potato starch-isoflavone diet on plasma isoflavone, plasma lipids, cecal enzyme activity, and composition of fecal microflora in adult mice)  
 RN 531-95-3 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



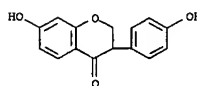
REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 44 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2002:539523 CAPLUS  
 DOCUMENT NUMBER: 137:88466  
 TITLE: Isoflavones in combination with lipid-regulating agents for regulation of lipids and/or bone density, and compositions therefor  
 INVENTOR(S): Husband, Alan James  
 PATENT ASSIGNEE(S): Novogen Research Pty. Ltd., Australia  
 SOURCE: PCT Int. Appl., 45 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

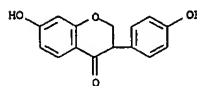
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|--|--------|-----------|-----------------|----------|
| WO 2002055072  | A1     | 20020718  | WO 2002-AU42    | 20020116 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZH, ZW  |        |           |                 |          |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |        |           |                 |          |
| CA 2433653   | AA     | 20020718  | CA 2002-2433653 | 20020116 |
| EP 1351682   | A1     | 20031015  | EP 2002-709886  | 20020116 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  |        |           |                 |          |
| JP 2004519455  | T2     | 20040702  | JP 2002-555806  | 20020116 |
| ZA 2003005091  | A      | 20030830  | ZA 2003-5091    | 20030101 |
| NO 2003003134  | A      | 20030903  | NO 2003-3134    | 20030708 |
| US 2004116498  | A1     | 20040617  | US 2004-250858  | 20040106 |
| PRIORITY APPLN. INFO.:   |        |           |                 |          |
| OTHER SOURCE(S):   | MARPAT | 137:88466 |                 |          |
| AB A method and compns. are provided for regulating bone d. and/or circulating lipid levels in a subject which are based on the combined administration of at least one isoflavone, or functional derivative, equivalent, or analog thereof, and at least one lipid-regulating drug. The method and compns. are applicable to the beneficial alteration of blood lipoprotein levels, the improvement of vascular compliance, the decrease in the propensity of thrombotic events, the reduction in the risk of vascular disease, coronary heart disease, and arteriosclerosis, and to the treatment or prevention of osteoporosis.                 |        |           |                 |          |
| IT 17238-05-0 17238-05-0D, analogs and derivs.<br>21554-71-2 21554-71-2D, analogs and derivs.<br>94105-87-0 94105-87-0D, analogs and derivs.<br>94105-89-2 94105-89-2D, analogs and derivs.<br>94105-90-5 94105-90-5D, analogs and derivs.<br>168207-15-6 168207-15-6D, analogs and derivs.<br>168207-16-7 168207-16-7D, analogs and derivs.<br>328406-44-6 328406-44-6D, analogs and derivs.<br>328406-47-9 328406-47-9D, analogs and derivs.<br>442150-42-7 442150-42-7D, analogs and derivs.<br>442150-43-8 442150-43-8D, analogs and derivs.<br>442150-61-0 442150-61-0D, analogs and derivs.<br>442150-68-7 442150-68-7D, analogs and derivs. |        |           |                 |          |

L12 ANSWER 43 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

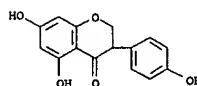
L12 ANSWER 44 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (isoflavone combination with lipid-regulating agent for regulation of lipids and/or bone d.)  
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 CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



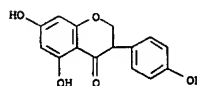
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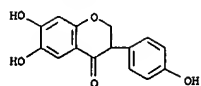
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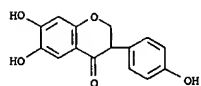
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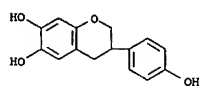
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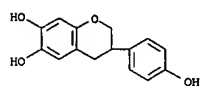
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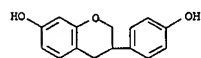
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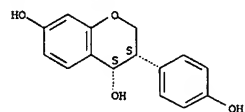
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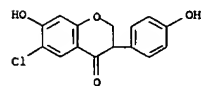
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(9CI) (CA INDEX NAME)

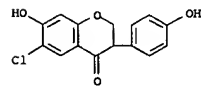
Relative stereochemistry.



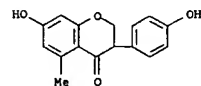
RN 328406-44-6 CAPLUS  
CN 4H-1-Benzopyran-4-one, 6-chloro-2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 328406-44-6 CAPLUS  
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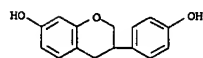


RN 328406-47-9 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-5-methyl- (9CI) (CA INDEX NAME)



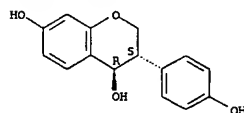
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2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



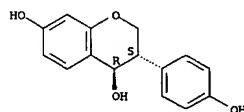
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Relative stereochemistry.



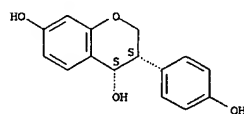
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CN 2H-1-Benzopyran-4,7-diol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

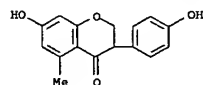


RN 168207-16-7 CAPLUS  
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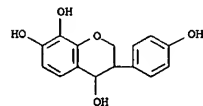
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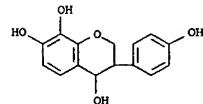
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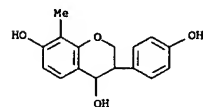
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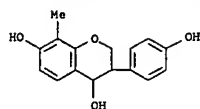
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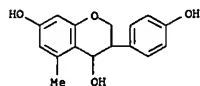
RN 442150-43-8 CAPLUS  
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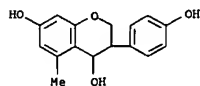
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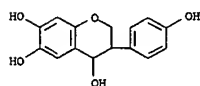
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(CA INDEX NAME)



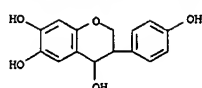
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(CA INDEX NAME)



RN 442150-68-7 CAPLUS  
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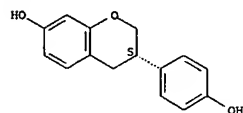
RN 442150-68-7 CAPLUS  
CN 2H-1-Benzopyran-4,6,7-triol, 3,4-dihydro-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2002:442544 CAPLUS  
DOCUMENT NUMBER: 137:184920  
TITLE: Effects of soy protein-isoflavone diet on plasma isoflavone and intestinal microflora in adult mice  
AUTHOR(S): Tamura, Motoi; Hirayama, Kazuhiro; Itoh, Kikujir; Suzuki, Hiramitsu; Shinohara, Kazuki  
CORPORATE SOURCE: National Food Research Institute, Tsukuba, 305-8642, Japan  
SOURCE: Nutrition Research (New York, NY, United States) (2002), 22(6), 705-713  
CODEN: NTRSDG; ISSN: 0271-5317  
PUBLISHER: Elsevier Science Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Effects of supplementing a soy protein or casein diet with isoflavones on intestinal microflora and plasma concns. of lipids and isoflavone metabolites were studied. Male mice were fed a soy protein or casein diet supplemented with isoflavones for four weeks, and feces and plasma samples were collected. Animals were also fed the soy protein or casein diet and feces were collected to investigate the capacity to produce equol from daidzein in vitro. The number of fusiform-shaped bacteria was significantly lower in the soy-isoflavone diet group than in the casein-isoflavone diet group, whereas the number of lactobacilli was significantly higher. No significant difference was observed in the plasma lipid concentration between the soy-isoflavone diet group and casein-isoflavone diet group. Plasma equol concentration was significantly higher in the soy-isoflavone diet group than in the casein-isoflavone diet group. After incubation of daidzein in vitro with the feces from the mice fed the soy protein and casein diets, the production of equol from daidzein was significantly more in the soy protein diet group. The present study indicates that the soy protein diet supplemented with isoflavone has an impact on the composition and metabolism of intestinal microflora and suggests that soy protein plays some roles in the effect of dietary isoflavones on the host through their effects on the intestinal microflora.  
IT 531-95-3P, Equol  
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOI (Biological study); PREP (Preparation)  
(effects of soy protein-isoflavone diet on plasma isoflavone and intestinal microflora in adult mice)  
RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

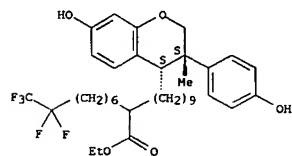
L12 ANSWER 46 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2001:435068 CAPLUS  
DOCUMENT NUMBER: 135:46097  
TITLE: Preparation of methylchromane or thiochromane derivatives with anti-estrogenic properties for the treatment of breast cancer  
INVENTOR(S): Jo, Jae-chon; Ahn, Koo-hyeon; Kim, Ju-su; Ho, Pil-su; Morikawa, Kazumi; Kanbe, Yoshitake; Nishimoto, Masahiro; Kim, Myung-hwa  
PATENT ASSIGNEE(S): C & C Research Laboratories, S. Korea  
SOURCE: PCT Int. Appl., 44 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND   | DATE     | APPLICATION NO.  | DATE       |
|------------------------|--|----------|------------------|------------|
| WO 2001042237          | A1   | 20010614 | WO 2000-KR1446   | 20001213   |
| W:                     | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |          |                  |            |
| RW:                    | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CH, CA, GN, GW, ML, MR, NE, SN, TD, TG   |          |                  |            |
| KR 2001055765          | A  | 20010704 | KR 1999-57065    | 19991213   |
| AU 2001020284          | A5   | 20010618 | AU 2001-20284    | 20001213   |
| EP 1240156             | A1   | 20020918 | EP 2000-983541   | 20001213   |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |          |                  |            |
| JP 2003516402          | T2   | 20030513 | JP 2001-543536   | 20001213   |
| US 2003013756          | A1   | 20030116 | US 2002-149750   | 20020613   |
| US 655571              | B2   | 20030429 |                  |            |
| PRIORITY APPLN. INFO.: |  |          | KR 1999-57065    | A 19991213 |
|                        |  |          | WO 2000-KR1446   | W 20001213 |
| OTHER SOURCE(S):       |  |          | MARPAT 135:46098 |            |
| G1                     |  |          |                  |            |

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

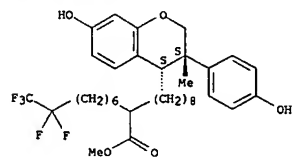
AB The invention relates to 3-methyl-chromane or -thiochromane derivs. I, and their pharmaceutically acceptable salts, stereoisomers or hydrates [wherein: X = O, S; R1 = H, metal; m = 2-14]. It also relates to anti-estrogenic pharmaceutical compns. which comprise the compds. as active components. I exhibit good antiestrogenic activity without substantial agonistic effects, even when administered orally. I are useful for treatment of estrogen-related diseases, particularly breast cancer. Four specific examples were prepared and claimed. For instance, chromanone precursor II was converted to invention compound III in 6 steps: (1) methylation at the 3-position with MeI; (2) reduction and cis-allylation at the carbonyl group; (3) coupling of the allyl group with Et 2-(7,7,8,8,8-pentafluorooctyl)dec-9-enoate; (4) hydrogenation of the allyl double bond; (5) deprotection of the methoxymethyl ethers; and (6) hydrolysis of the ester. At an oral dose of 10 mg/kg in ovariectomized

L12 ANSWER 46 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 344466-84-8 CAPLUS  
CN 2H-1-Benzopyran-4-undecanoic acid, 3,4-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-3-methyl-α-(7,7,8,8,8-pentafluorooctyl)-, methyl ester, (3R,4R)-rel- (9CI) (CA INDEX NAME)

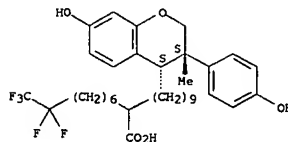
Relative stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

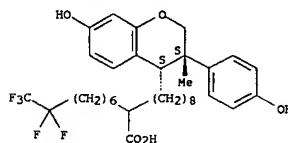
L12 ANSWER 46 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
mice, III gave 85.1% inhibition of 17β-estradiol benzoate-induced uterine wt. gain, vs. only 41.7% inhibition using the known antiestrogen ZM189154.  
IT 344466-68-8P 344466-69-9P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of anti-estrogenic methylchromane or thiochromane derivs. for treatment of breast cancer)  
RN 344466-68-8 CAPLUS  
CN 2H-1-Benzopyran-4-undecanoic acid, 3,4-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-3-methyl-α-(7,7,8,8,8-pentafluorooctyl)-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 344466-69-9 CAPLUS  
CN 2H-1-Benzopyran-4-undecanoic acid, 3,4-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-3-methyl-α-(7,7,8,8,8-pentafluorooctyl)-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 344466-81-5P 344466-84-8P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of anti-estrogenic methylchromane or thiochromane derivs. for treatment of breast cancer)  
RN 344466-81-5 CAPLUS  
CN 2H-1-Benzopyran-4-undecanoic acid, 3,4-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-3-methyl-α-(7,7,8,8,8-pentafluorooctyl)-, ethyl ester, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

L12 ANSWER 47 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:435067 CAPLUS  
DOCUMENT NUMBER: 135:46097  
TITLE: Preparation of metal salts of methylchromane or thiochromane derivatives with anti-estrogenic properties for the treatment of breast cancer  
INVENTOR(S): Jo, Jae-chon; Park, Sung-dae; Lim, Hyun-suk; Ahn, Sung-oh; Morikawa, Kazumi; Kanbe, Yoshitake; Nishimoto, Masahiro; Kim, Myung-hwa  
PATENT ASSIGNEE(S): C & C Research Laboratories, S. Korea  
SOURCE: PCT Int. Appl., 49 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND   | DATE     | APPLICATION NO.  | DATE       |
|------------------------|--|----------|------------------|------------|
| WO 2001042236          | A1   | 20010614 | WO 2000-KR1445   | 20001213   |
| W:                     | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |          |                  |            |
| RW:                    | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CH, CA, GN, GW, ML, MR, NE, SN, TD, TG   |          |                  |            |
| KR 2001055766          | A  | 20010704 | KR 1999-57066    | 19991213   |
| EP 1240155             | A1   | 20020918 | EP 2000-983540   | 20001213   |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |          |                  |            |
| JP 2003516401          | T2   | 20030513 | JP 2001-543535   | 20001213   |
| US 2003092695          | A1   | 20030515 | US 2002-149754   | 20020613   |
| PRIORITY APPLN. INFO.: |  |          | KR 1999-57066    | A 19991213 |
|                        |  |          | WO 2000-KR1445   | W 20001213 |
| OTHER SOURCE(S):       |  |          | MARPAT 135:46097 |            |
| G1                     |  |          |                  |            |

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention relates to metal salts of 3-methyl-chromane or -thiochromane derivs., specifically I, and their pharmaceutically acceptable salts, stereoisomers or hydrates [wherein: X = O, S; R1 = metal; m = 2-14; n = 2-7]. It also relates to anti-estrogenic pharmaceutical compns. which comprise the compds. as active components. I exhibit good antiestrogenic activity without substantial agonistic effects, even when administered orally. Moreover, I exhibit highly improved solubility I are useful for treatment of estrogen-related diseases, particularly breast cancer. Three specific examples (all sodium salts) were prepared and claimed. For instance, thiochromanone precursor II was converted to invention compound III in 10 steps: (1) alkylation of the ketone with an α-silylated octyne; (2) reduction of the resulting alc. and alkyne moieties to give cis stereochem.; (3) desilylation; (4) methylation of the resulting alc.; (5) conversion of the mesylate to an iodide; (6) coupling of the iodide with the malonate ester CF3CF2(CH2)3CH(CO2Et)2; (7) saponification

L12 ANSWER 47 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
of the diester; (8) monocarboxylation of the diacid; (9) demethylation of the methoxy groups; and (10) conversion to the Na salt. At an oral dose of 10 mg/kg in ovariectomized mice, the Na salt III gave 74% inhibition of 17 $\beta$ -estradiol benzoate-induced uterine wt. gain, vs. 79% for the corresponding free acid, and only 69% for the known steroidal antiestrogen ICI182,780. III was markedly more sol. than either the free acid or the comparison compd. in artificial intestinal juice. III was also water-sol. to nearly the same extent, whereas the other 2 compds. were essentially insol.

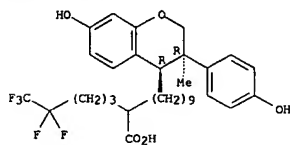
IT 344466-22-49  
RI: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of metal salts of methylchromane or thiochromane derivs.

with anti-estrogenic properties for treatment of breast cancer)

RN 344466-22-4 CAPLUS

CN 2H-1-Benzopyran-4-undecanoic acid, 3,4-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-3-methyl- $\alpha$ -(4,4,5,5,5-pentafluoropentyl)-, monosodium salt, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 252945-99-6P  
RI: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of metal salts of methylchromane or thiochromane derivs.

with anti-estrogenic properties for treatment of breast cancer)

RN 252945-99-6 CAPLUS

CN 2H-1-Benzopyran-4-undecanoic acid, 3,4-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-3-methyl- $\alpha$ -(4,4,5,5,5-pentafluoropentyl)-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

L12 ANSWER 48 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:424978 CAPLUS

DOCUMENT NUMBER: 135:357308

TITLE: Animal models impacted by phytoestrogens in commercial chow: Implications for pathways influenced by hormones

Brown, Nadine M.; Setchell, Kenneth D. R.

Clinical Mass Spectrometry, Children's Hospital

Medical Center, Cincinnati, OH, 45227, USA

LABORATORY INVESTIGATION (2001), 81(5), 735-747

CODEN: LAINAW; ISSN: 0023-6837

PUBLISHER: Lippincott Williams & Wilkins

DOCUMENT TYPE: Journal

LANGUAGE: English

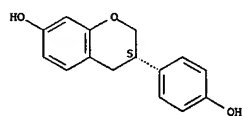
AB Most com. rodent diets are formulated with soybean protein and deliver large daily doses of isoflavones to animals throughout their lifespan, including the in utero period. Isoflavones are bioavailable and com. rodent diets universally used by animal facilities lead to very high steady-state blood serum isoflavone concns. in adult rats (2613 $\pm$ 873 ng/mL) and mice (2338 $\pm$ 531 ng/mL), exceeding the endogenous estrogen levels 30,000- to 60,000-fold. The maternal-fetal intrauterine transfer of isoflavones was demonstrated in animals fed standard Purina 5001 soybean-containing diet. The newborn rat pups had high serum isoflavone levels (540 $\pm$ 174 ng/mL) that were maintained throughout the suckling period by passage of isoflavones into the maternal milk. The findings have profound implications for all animal expts., including multigenerational studies and studies of transgenic animals, especially when biochem. or morphol. end-points are influenced by the hormonal or nonhormonal properties of phytoestrogens. The phytoestrogens have the potential to modulate genotypic and phenotypic expression in general and all investigators should be vigilant to the phytoestrogen composition of com. rodent diets because there is a history of potent biol. effects in larger animals and in humans from high circulating isoflavone concns.

IT 531-95-3, Equol  
RI: BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PROC (Process); USES (Uses)  
(dietary soybean isoflavone phytoestrogens in com. laboratory rodent chow feeds impact on rat and mouse models, pathways influenced by hormones and exptl. outcomes)

RN 531-95-3 CAPLUS

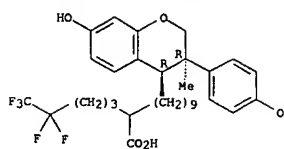
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 96 THERE ARE 96 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 47 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 49 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:50474 CAPLUS

DOCUMENT NUMBER: 134:110467

TITLE: Method and compositions using phytoestrogens and phytoestrogens for inhibiting biosynthesis or bioactivity of endogenous steroid sex hormones in humans

INVENTOR(S): Hughes, Claude L., Jr.; Magoffin, Denis A.

PATENT ASSIGNEE(S): Cedars-Sinai Medical Center, USA

SOURCE: PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| WO 2001003687 | A2   | 20010118 | WO 2000-US18909 | 20000712 |
| WO 2001003687 | A3   | 20010809 |                 |          |

W: AE, AG, AL, AM, AT, AU, A2, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TH, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-353004 A 19990713  
AB A method is disclosed for inhibiting biosynthesis or bioactivity of endogenous steroid sex hormones in both men and women involving the administration of a combination of phytoestrogen(s) and phytoestrogen(s) to inhibit enzymic activity in the steroidogenic biosynthetic pathway that converts steroid progesterins and androgens to more potent steroidal hormones, like estradiol and dihydrotestosterone. Also disclosed is a pharmaceutical composition useful for inhibiting biosynthesis or bioactivity of endogenous steroid sex hormones in humans. The pharmaceutical composition is formulated in a delivery system to deliver a dose of 50-250 mg of a phytoestrogen(s), e.g. campesterol, sitosterol, luosterol, stigmasterol, stigmasterol, or stigmasterol, or a derivative or conjugate of any of these, and 20-150 mg of a phytoestrogen(s), e.g. a lignan, isoflavone, flavone, or coumestan compound(s).

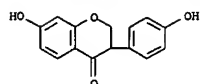
IT 17238-05-0, Dihydrodaidzein 21554-71-2, Dihydrogenistein 304892-20-4

RI: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

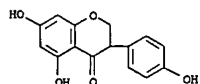
(phytoestrogens and phytoestrogens for inhibiting biosynthesis or bioactivity of endogenous steroid sex hormones in humans)

RN 17238-05-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

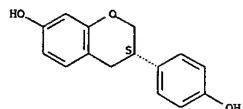
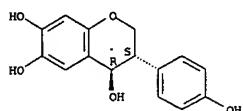


RN 21554-71-2 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-3-(4-hydroxyphenyl)-  
(9CI) (CA INDEX NAME)



RN 304892-20-4 CAPLUS  
CN 2H-1-Benzopyran-4,6,7-triol, 3,4-dihydro-3-(4-hydroxyphenyl)-,  
(3R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2000:175657 CAPLUS  
DOCUMENT NUMBER: 132:227170  
TITLE: Method and compositions for reducing dermatological aging and for reducing bruising  
INVENTOR(S): Duraiswami, Chaya; Simpson, Susan E.; Garrison, Mark S.; Martin, Dennis M.; Bloom, Roberta C.  
PATENT ASSIGNEE(S): Avon Products, Inc., USA  
SOURCE: PCT Int. Appl., 28 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND   | DATE     | APPLICATION NO. | DATE        |
|------------------------|--|----------|-----------------|-------------|
| WO 2000013661          | A1   | 20000316 | WO 1999-US20854 | 19990910    |
| W:                     | AE, AL, AM, AT, AU, A2, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |          |                 |             |
| RW:                    | GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG   |          |                 |             |
| CA 2309179             | AA   | 20000316 | CA 1999-2309179 | 19990910    |
| AU 9960345             | A1   | 20000327 | AU 1999-60345   | 19990910    |
| BR 9906998             | A  | 20000926 | BR 1999-6998    | 19990910    |
| EP 1041964             | A1   | 20001011 | EP 1999-968624  | 19990910    |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO   |          |                 |             |
| MX 200004471           | A  | 20001110 | MX 2000-4471    | 20000509    |
| US 2004131579          | A1   | 20040708 | US 2003-682238  | 20031009    |
| PRIORITY APPLN. INFO.: |  |          | US 1998-99698P  | P 19980910  |
|                        |  |          | WO 1999-US20854 | U 19990910  |
|                        |  |          | US 2000-554004  | B1 20000508 |

AB Methods to reduce susceptibility to, severity or duration of, bruising of skin and topical compns. for practicing such methods. The topical compns. comprise an isoflavonoid and a vehicle. The invention also includes a synergistic topical composition that includes, in addition to the isoflavonoid and vehicle, secondary components selected from specific classes of compds. An example composition contained lactic acid (85%) 4.71, soy extract (0.08%) 25.00 weight% and vehicle q.s.

IT 531-95-3, Equol  
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(compns. for reducing dermatol. aging and reducing bruising)

RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

ACCESSION NUMBER: 1999:763874 CAPLUS  
DOCUMENT NUMBER: 131:356148  
TITLE: Isoflavonoids for treatment and prevention of migraine headaches  
INVENTOR(S): Gorbach, Sherwood L.; Goldin, Barry R.  
PATENT ASSIGNEE(S): USA  
SOURCE: PCT Int. Appl., 10 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

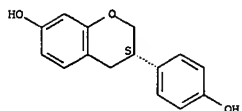
| PATENT NO.             | KIND   | DATE     | APPLICATION NO. | DATE       |
|------------------------|--|----------|-----------------|------------|
| WO 9961028             | A1   | 19991202 | WO 1999-US11532 | 19990525   |
| W:                     | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |          |                 |            |
| RW:                    | GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG   |          |                 |            |
| CA 2333556             | AA   | 19991202 | CA 1999-2333556 | 19990525   |
| AU 9942040             | A1   | 19991213 | AU 1999-42040   | 19990525   |
| EP 1082122             | A1   | 20010314 | EP 1999-925828  | 19990525   |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI   |          |                 |            |
| PRIORITY APPLN. INFO.: |  |          | US 1998-85480   | A 19980527 |
|                        |  |          | WO 1999-US11532 | U 19990525 |

AB A method of treating or preventing symptoms of migraine headaches comprises administering an oral or transdermal composition containing purified isoflavonoids, which are constituents of soy beans and other plants such as clover. Isoflavonoids are selected from the group consisting of genistein, daidzein, biochanin A, formononetin, O-desmethylanagolensin, glycitein, equol and dihydrodaidzein and their conjugates, alone or in combination, to produce a transient isoflavonoid blood concentration of at least 10 ng/mL. An oral composition is in the form of an oral dosage form, such as a pill, capsule, tablet, powder, or syrup or in the form of a non-naturally occurring dietary product, such as a confectionary bar, cereal, biscuit or beverage. A transdermal composition is in the form of a patch with isoflavonoids is 1-40 mg/g of the base, more preferably 10-25 mg/g of base.

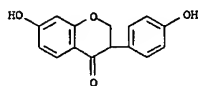
IT 531-95-3, Equol 17238-05-0  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(isoflavonoids for treatment and prevention of migraine headaches)

RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



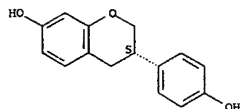
RN 17238-05-0 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI)  
(CA INDEX NAME)



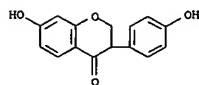
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 1999:668280 CAPLUS  
DOCUMENT NUMBER: 131:129823  
TITLE: Identification of Isoflavone Metabolites Dihydrodaidzein, Dihydrogenistein, 6'-OH-O-dma, and cis-4-OH-equal in Human Urine by Gas Chromatography-Mass Spectroscopy Using Authentic Reference Compounds  
AUTHOR(S): Heinonen, S.; Wahala, K.; Adlercreutz, H.  
CORPORATE SOURCE: Folkhalsan Institute for Preventive Medicine, Nutrition, and Cancer, Department of Clinical Chemistry, University of Helsinki, Helsinki, FIN-00014, Finland  
SOURCE: Analytical Biochemistry (1999), 274(2), 211-219  
CODEN: ANBCA2; ISSN: 0003-2697  
PUBLISHER: Academic Press  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The metabolic products of daidzein and genistein, the principal isoflavones of soy, were examined. Six volunteers included soy into their normal diet for a 2-wk period and urine samples were analyzed before and after soy consumption. Isolation and characterization of the urinary metabolites were carried out with absorption chromatog. on Sephadex LH-20 and gas chromatog.-electron ionization mass spectrometry (GC-EIMS). The structures of the isoflavones isolated were confirmed by using authentic reference compds. Dihydrogenistein, 6'-OH-O-desmethyldangolensin, and cis-4-OH-equal were identified, in addition to known isoflavonoids daidzein, genistein, glycitein, and the known metabolites equal, O-desmethyldangolensin, and dihydrodaidzein, by comparing the retention times and the spectra of the urinary compds. with those of the synthesized reference stds. The mammalian lignans enterolactone and enterodiol were also identified. Derivatization of the isoflavones for GC-MS was examined by comparing two silylating reagents, N,O-bis-(trimethylsilyl)-trifluoroacetamide (BSTFA) and pyridine:hexamethyldisilazane:trimethylchlorosilane (QSM), both used for the derivatization of these compds. The silylation expts. revealed significant differences in the compds. of the derivatization products. Some corrections were made concerning the earlier published data of dihydrogenistein and 6'-OH-O-dma. (c) 1999 Academic Press.  
IT 531-95-3, Equal 17238-05-0, Dihydrodaidzein 21554-71-2, Dihydrogenistein 168207-16-7  
RL: ANT (Analyte); BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); ANST (Analytical study); BOL (Biological study); OCCU (Occurrence); PROOC (Process); USES (Uses)  
(identification of isoflavone metabolites dihydrodaidzein, dihydrogenistein, 6'-OH-O-dma, and cis-4-OH-equal in human urine by GC-MS)  
RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

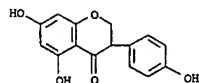
Absolute stereochemistry.



RN 17238-05-0 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI)  
(CA INDEX NAME)

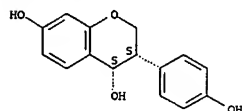


RN 21554-71-2 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 168207-16-7 CAPLUS  
CN 2H-1-Benzopyran-4,7-diol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3R,4R)-cel- (9CI) (CA INDEX NAME)

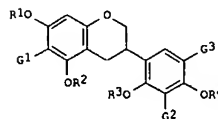
Relative stereochemistry.



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 1999:487283 CAPLUS  
DOCUMENT NUMBER: 131:129823  
TITLE: Isoflavan derivatives and immuno-potentiating compositions containing the same  
INVENTOR(S): Masaki, Shunichiro; Tojyo, Takehiko; Takashima, Akira; Seo, Shujiro  
PATENT ASSIGNEE(S): Shionogi & Co., Ltd., Japan  
SOURCE: PCT Int. Appl., 157 pp.  
CODEN: PIXX02  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE              | APPLICATION NO. | DATE       |
|---|------|-------------------|-----------------|------------|
| WO 9937633  | A1   | 19990729          | WO 1999-JP346   | 19990127   |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |                   |                 |            |
| RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  |      |                   |                 |            |
| AU 9921838  | A1   | 19990809          | AU 1999-21838   | 19990127   |
| EP 1057825  | A1   | 20001206          | EP 1999-901889  | 19990127   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI   |      |                   |                 |            |
| PRIORITY APPLN. INFO.:  |      |                   | JP 1998-13937   | A 19980127 |
|   |      |                   | WO 1999-JP346   | W 19990127 |
| OTHER SOURCE(S):  |      | MARPAT 131:129823 |                 |            |
| GI  |      |                   |                 |            |

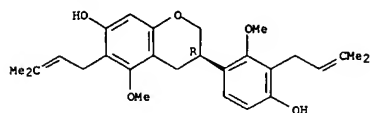


AB Title compds. I [R1, R2, R3, R4 = H, (un)substituted alkyl, (un)substituted alkenyl, etc.; G1, G2, G3 = H, (un)substituted acyl, (un)substituted aliphatic hydrocarbyl] are prepared. Thus, licoricidin in THF was treated with NaH and MeI at room temperature for 15 min to give I [R1 = R2 = R3 = R4 = Me, G1 = G2 = 3-methyl-2-butenyl, R3 = H] (II) and I [R1 = R2 = R4 = Me, R3 = G3 = H, G1 = G2 = 3-methyl-2-butenyl]. In an in vitro study using spleen tissue, II at 6.25 µg/mL showed lymphocyte rejuvenation 2.46 times that of the control. Pharmaceutical compns. containing I are described.  
IT 233691-03-7P 233691-04-8P 233691-10-6P



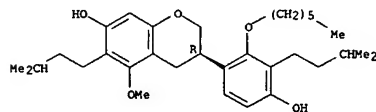
L12 ANSWER 53 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
233691-16-2P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of isoflavan derivs. as immuno-potentiators)  
RN 233691-03-7 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-[4-hydroxy-2-methoxy-3-(3-methyl-2-butenyl)phenyl]-5-methoxy-6-(3-methyl-2-butenyl)-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



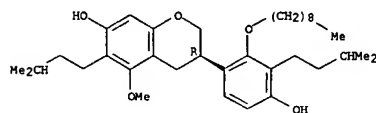
RN 233691-04-8 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3-[2-(hexyloxy)-4-hydroxy-3-(3-methylbutyl)phenyl]-3,4-dihydro-5-methoxy-6-(3-methylbutyl)-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 233691-10-6 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-[4-hydroxy-3-(3-methylbutyl)-2-(nonyloxy)phenyl]-5-methoxy-6-(3-methylbutyl)-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 233691-16-2 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-[4-hydroxy-3-(3-methylbutyl)-2-(1-methylethoxy)phenyl]-5-methoxy-6-(3-methylbutyl)-, (3R)- (9CI) (CA INDEX NAME)

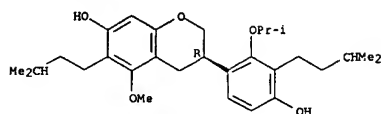
L12 ANSWER 54 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1999:464173 CAPLUS  
DOCUMENT NUMBER: 131:120612  
TITLE: Compositions and method for protecting skin from UV-induced immunosuppression and skin damage  
INVENTOR(S): Kelly, Graham Edmund; Husband, Alan James  
PATENT ASSIGNEE(S): Novogen Research Pty. Ltd., Australia  
SOURCE: PCT Int. Appl., 34 pp.  
CODEN: PIXX02  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO.   | DATE        |
|---|------|----------|-------------------|-------------|
| WO 9936050  | A1   | 19990722 | WO 1998-AU1054    | 19981221    |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW |      |          |                   |             |
| RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, NW, TD, TG  |      |          |                   |             |
| CA 2316349  | AA   | 19990722 | CA 1998-2316349   | 19981221    |
| AU 9916518  | A1   | 19990802 | AU 1999-16518     | 19981221    |
| AU 750031   | B2   | 20020711 |                   |             |
| EP 1049451  | A1   | 20001108 | EP 1998-960911    | 19981221    |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO   |      |          |                   |             |
| TR 200002064  | T2   | 20010122 | TR 2000-200002064 | 19981221    |
| NZ 505377   | A    | 20030530 | NZ 1998-505377    | 19981221    |
| BR 9814343  | A    | 20040413 | BR 1998-14343     | 19981221    |
| IL 136784   | A1   | 20050725 | IL 1998-136784    | 19981221    |
| AT 311171   | E    | 20051215 | AT 1998-960911    | 19981221    |
| ES 2253838  | T3   | 20060601 | ES 1998-960911    | 19981221    |
| SE 2000002286   | A    | 20000821 | SE 2000-2286      | 20000619    |
| SE 526737   | C2   | 20051101 |                   |             |
| NO 2000003201   | A    | 20000822 | NO 2000-3201      | 20000620    |
| US 6455032  | B1   | 20020924 | US 2000-582317    | 20000623    |
| US 2003059384   | A1   | 20030327 | US 2002-212847    | 20020805    |
| US 2005036962   | A1   | 20050217 | US 2004-947356    | 20040921    |
| PRIORITY APPLN. INFO.:  |      |          | AU 1997-1124      | A 19971224  |
|   |      |          | WO 1998-AU1054    | W 19981221  |
|   |      |          | US 2000-582317    | A1 20000623 |
|   |      |          | US 2002-212847    | B1 20020805 |

OTHER SOURCE(S): MARPAT 131:120612  
AB A method for protecting skin from either UV-induced immunosuppression or UV-induced skin damage comprises topical administration of a compn. containing an extract of soy or clover and/or the isoflavones genistein, biochanin, dihydrodaidzein, daidzein, formononetin, dihydrogenistein, 2-dehydro-O-demethylangolensin, tetrahydrodaidzein, equol, dehydroequol, O-demethylangolensin, or 6-hydroxy-O-demethylangolensin. Such compns. protect the skin from UV-induced erythema, photoaging, and premalignant and malignant skin cancers, even in the absence of UV absorbers. Thus, oxazolone induced contact hypersensitivity in hairless mice (manifested as ear swelling and erythema); this effect was suppressed by exposure to UV radiation, but the suppression was much less if the skin were subsequently treated with a lotion containing genistein or equol.  
IT 531-95-3, Equol 17238-05-0 21554-71-2

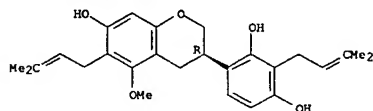
L12 ANSWER 53 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

Absolute stereochemistry.



IT 30508-27-1, Licoricidin  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)  
(preparation of isoflavan derivs. as immuno-potentiators)  
RN 30508-27-1 CAPLUS  
CN 1,3-Benzenediol, 4-[(3R)-3,4-dihydro-7-hydroxy-5-methoxy-6-(3-methyl-2-butenyl)-2H-1-benzopyran-3-yl]-2-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

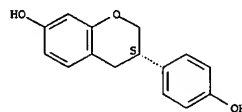


REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

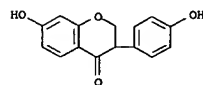
L12 ANSWER 54 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

65998-44-9 94105-90-5 102056-04-2  
175089-66-4 232261-55-1 232261-56-2 23226  
1-57-3 232261-58-4 232261-59-5  
232261-60-8  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(compos. and method for protecting skin from UV-induced immunosuppression and skin damage)  
RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

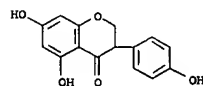
Absolute stereochemistry.



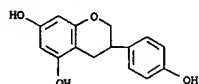
RN 17238-05-0 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



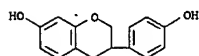
RN 21554-71-2 CAPLUS  
CN 2H-1-Benzopyran-5,7-diol, 3,4-dihydro-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



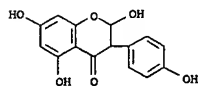
RN 65998-44-9 CAPLUS  
CN 2H-1-Benzopyran-5,7-diol, 3,4-dihydro-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



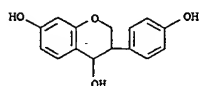
RN 94105-90-5 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



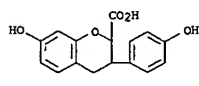
RN 102056-04-2 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-2,5,7-trihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



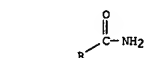
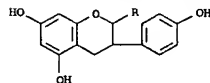
RN 175089-66-4 CAPLUS  
CN 2H-1-Benzopyran-4,7-diol, 3,4-dihydro-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



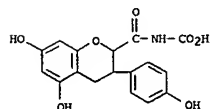
RN 232261-55-1 CAPLUS  
CN 2H-1-Benzopyran-2-carboxylic acid, 3,4-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



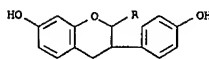
RN 232261-56-2 CAPLUS  
CN 2H-1-Benzopyran-2-carboxamide, 3,4-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



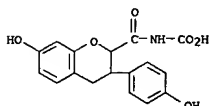
RN 232261-60-8 CAPLUS  
CN Carbamic acid, [(3,4-dihydro-5,7-dihydroxy-3-(4-hydroxyphenyl)-2H-1-benzopyran-2-yl)carbonyl]- (9CI) (CA INDEX NAME)



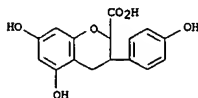
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT



RN 232261-57-3 CAPLUS  
CN Carbamic acid, [(3,4-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-2H-1-benzopyran-2-yl)carbonyl]- (9CI) (CA INDEX NAME)



RN 232261-58-4 CAPLUS  
CN 2H-1-Benzopyran-2-carboxylic acid, 3,4-dihydro-5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

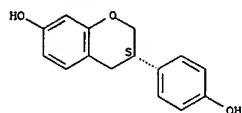


RN 232261-59-5 CAPLUS  
CN 2H-1-Benzopyran-2-carboxamide, 3,4-dihydro-5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

ACCESSION NUMBER: 1999:130584 CAPLUS  
DOCUMENT NUMBER: 130:200924  
TITLE: Compositions and treatments to reduce side effects of administration of androgenic testosterone precursors  
PATENT ASSIGNEE(S): Weider Nutrition International, Inc., USA  
SOURCE: PCT Int. Appl., 34 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND  | DATE     | APPLICATION NO. | DATE       |
|------------------------|---|----------|-----------------|------------|
| WO 9907381             | A1  | 19990218 | WO 1998-US16679 | 19980811   |
| W:                     | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  |          |                 |            |
| RW:                    | GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CG, CI, CH, GA, GN, GW, ML, MR, NE, SN, TD, TG  |          |                 |            |
| AU 9887798             | A1  | 19990301 | AU 1998-87798   | 19980811   |
| PRIORITY APPLN. INFO.: |   |          | US 1997-55346P  | P 19970811 |
|                        |   |          | WO 1998-US16679 | W 19980811 |
| AB                     | A method for reducing potential adverse effects of androgenic testosterone precursors by interfering with production or action of testosterone and estrogen metabolites by nutrient combinations is described. Although androgenic testosterone precursors themselves have little or no toxicity, there is the potential for their metabolites, estradiol and dihydrotestosterone, to enhance or cause hormone-responsive illnesses such as breast or prostatic cancer, benign prostatic hyperplasia, or hirsutism or acne in women. The use of the nutrient combinations reduces the formation or action of estradiol and dihydrotestosterone, thereby reducing potential adverse effects from increased production of these hormones following androgenic testosterone precursor administration. This may be accomplished without negating the effects of testosterone on muscle anabolism. The nutrient combinations include androstenedione, DHEA, pregnenolone, androstenediols, norandrostenedione and norandrostenediols, and natural products which reduce estrogen effects in the estrogen-responsive tissues, and substances to reduce formation of dihydrotestosterone from testosterone in prostate tissue. Thus, a composition contained androstenedione 100, green tea extract 50, and zinc arginate 10 mg. |          |                 |            |
| IT                     | 531-95-3, Equal   |          |                 |            |
| RL:                    | THU (Therapeutic use); BIOL (Biological study); USES (Uses) (compos. for reduction of side effects of administration of androgenic testosterone precursors)   |          |                 |            |
| RN                     | 531-95-3 CAPLUS   |          |                 |            |
| CN                     | 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)   |          |                 |            |

Absolute stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 56 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1999:126822 CAPLUS  
 DOCUMENT NUMBER: 130:181817  
 TITLE: Isoflavone-containing health food and pharmaceuticals  
 INVENTOR(S): Uchiyama, Shigeto; Ueno, Tomomi; Imaizumi, Kiyoko; Kumemura, Megumi; Masaki, Kyosuke; Shimizu, Seiichi  
 PATENT ASSIGNEE(S): Otsuka Pharmaceutical Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 49 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO.  | DATE        |
|--|------|----------|------------------|-------------|
| WO 9907392   | A1   | 19990218 | WO 1998-JP3460   | 19980804    |
| W: AU, CA, CN, JP, KR, US  |      |          |                  |             |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE |      |          |                  |             |
| CA 2298679   | AA   | 19990218 | CA 1998-2298679  | 19980804    |
| AU 9884631   | A1   | 19990301 | AU 1998-84631    | 19980804    |
| AU 735713  | B2   | 20010712 |                  |             |
| EP 1025850   | A1   | 20000809 | EP 1998-935344   | 19980804    |
| EP 1025850   | B1   | 20051123 |                  |             |
| R: CH, DE, ES, FR, GB, IT, LI, NL  |      |          |                  |             |
| ES 2249837   | T3   | 20060401 | ES 1998-935344   | 19980804    |
| CN 1757743   | A    | 20060412 | CN 2005-10097651 | 19980804    |
| EP 1656942   | A2   | 20060517 | EP 2005-25442    | 19980804    |
| R: CH, DE, ES, FR, GB, IT, LI, NL  |      |          |                  |             |
| TW 580517  | B    | 20040321 | TW 1999-88100726 | 19990118    |
| US 6716424   | B1   | 20040406 | US 2000-485320   | 20000208    |
| US 2004141954  | A1   | 20040722 | US 2004-752674   | 20040108    |
| PRIORITY APPLN. INFO.:   |      |          | JP 1997-214604   | A 19970808  |
|  |      |          | CN 1998-807930   | A3 19980804 |
|  |      |          | EP 1998-935344   | A3 19980804 |
|  |      |          | WO 1998-JP3460   | W 19980804  |
|  |      |          | US 2000-485320   | A3 20000208 |

AB A composition consists of a daidzein (sic) -containing material and a microorganism capable of metabolizing daidzein to give equol. It is effective in preventing unidentified complaints in women of middle and old ages. The microorganism is selected from Bacteroides ovatus, Streptococcus intermedius, and S. constellatus.

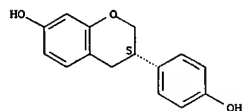
IT 531-95-3, Equol

RL: BUU (Biological use, unclassified); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (health food and pharmaceuticals containing)

RN 531-95-3 CAPLUS

CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

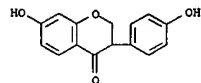


REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 57 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1999:34374 CAPLUS  
 DOCUMENT NUMBER: 130:100665  
 TITLE: Pharmaceutical compositions containing daidzein for decreasing LDL-cholesterol concentration and increasing HDL-cholesterol concentration in the blood and to reduce the risk of atherosclerosis and vascular diseases  
 INVENTOR(S): Potter, Susan M.; Henley, Edna C.; Waggle, Doyle H.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S., 10 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE       |
|---|------|----------|------------------|------------|
| US 5855892  | A    | 19990105 | US 1997-933788   | 19970919   |
| CA 2231292  | AA   | 19990319 | CA 1998-2231292  | 19980306   |
| TW 486368   | B    | 20020511 | TW 1998-87103511 | 19980310   |
| AU 9863574  | A1   | 19990401 | AU 1998-63574    | 19980423   |
| AU 732095   | B2   | 20010412 |                  |            |
| CN 1212150  | A    | 19990331 |                  |            |
| CN 1102847  | B    | 20030312 | CN 1998-108956   | 19980522   |
| BR 9815302  | A    | 20001017 | BR 1998-15302    | 19980723   |
| JP 11139973   | A2   | 19990525 | JP 1998-244798   | 19980831   |
| EP 903143   | A2   | 19990324 | EP 1998-307603   | 19980918   |
| EP 903143   | A3   | 19990506 |                  |            |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO   |      |          |                  |            |
| PRIORITY APPLN. INFO.:  |      |          | US 1997-933788   | A 19970919 |
| AB A method of altering the concentration of cholesterol constituents in human blood is provided. A daidzein material is administered to a human to increase the concentration of HDL-cholesterol and to decrease the level of LDL-cholesterol in the blood. The daidzein material may be administered in a pharmaceutical composition, or in a dietary supplement, including soy protein based dietary supplements. Utilization of daidzein to increase the concentration of HDL-cholesterol and to decrease the concentration of LDL-cholesterol in the blood reduces the risk of atherosclerosis and vascular disease by providing more health beneficial HDL-cholesterol and reducing the level of atherosclerosis-inducing LDL-cholesterol. Ready to drink beverages contained water 80-85, daidzein rich isolated soy protein 10-15, sucrose 5-8, cocoa 0.1-1, vitamins/minerals 0.1-1, flavor 0.1-1, and cellulose gel 0.1-0.5%. The effect of the isoflavones genistein, daidzein, and glycitin on HDL-cholesterol, non HD-cholesterol, and total cholesterol concentration in the blood of post-menopausal women was studied over a 6 mo period. The results indicated that the isoflavone-containing protein diet groups have significantly increased HDL-cholesterol concns. and decreased non-HDL cholesterol concns. relative to the control casein-containing diet having no isoflavones. |      |          |                  |            |
| IT 17238-05-0   |      |          |                  |            |
| RL: BSU (Biological study, unclassified); BIOL (Biological study) (pharmaceutical compns. containing daidzein for decreasing LDL-cholesterol concentration and increasing HDL-cholesterol concentration in blood and to reduce risk of atherosclerosis and vascular diseases)   |      |          |                  |            |

L12 ANSWER 57 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
RN 17238-05-0 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI)  
(CA INDEX NAME)



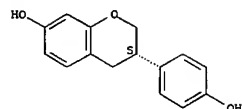
REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 58 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1999:7816 CAPLUS  
DOCUMENT NUMBER: 130:57023  
TITLE: Isoflavonoids for treatment and prevention of aging skin and wrinkles  
INVENTOR(S): Gorbach, Sherwood L.  
PATENT ASSIGNEE(S): USA  
SOURCE: PCT Int. Appl., 10 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND  | DATE     | APPLICATION NO. | DATE       |
|------------------------|---|----------|-----------------|------------|
| WO 9856373             | A1  | 19981217 | WO 1998-US10605 | 19980526   |
| W:                     | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  |          |                 |            |
| RW:                    | GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG  |          |                 |            |
| US 6060070             | A   | 20000509 | US 1997-873314  | 19970611   |
| CA 2294062             | AA  | 19981217 | CA 1998-2294062 | 19980526   |
| AU 9876942             | A1  | 19981230 | AU 1998-76942   | 19980526   |
| EP 998262              | A1  | 20000510 | EP 1998-924873  | 19980526   |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI  |          |                 |            |
| JP 2002511860          | T2  | 20020416 | JP 1999-502523  | 19980526   |
| PRIORITY APPLN. INFO.: |   |          | US 1997-873314  | A 19970611 |
|                        |   |          | WO 1998-US10605 | W 19980526 |
| AB                     | A method of treating or preventing, in a person, one or more symptoms of aging skin, said method comprising topically administering to the skin of said person a composition comprising one or more isoflavonoids selected from the group consisting of genistein, daidzein, biochanin A, formononetin, O-desmethylogonolensin, glycitin, and equol, in a topically acceptable base, wherein the isoflavonoid concentration is between 1 and 40 mg per g of base (no data). |          |                 |            |
| IT                     | 531-95-3, Equol<br>RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)<br>(isoflavonoids for treatment and prevention of aging skin and wrinkles)  |          |                 |            |
| RN                     | 531-95-3 CAPLUS   |          |                 |            |
| CN                     | 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)   |          |                 |            |

Absolute stereochemistry.

L12 ANSWER 58 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

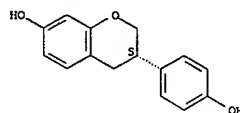


REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 59 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1998:77661 CAPLUS  
DOCUMENT NUMBER: 130:20588  
TITLE: Use of isoflavonoids in the treatment or prevention of postpartum depression  
INVENTOR(S): Gorbach, Sherwood L.  
PATENT ASSIGNEE(S): USA  
SOURCE: PCT Int. Appl., 9 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND   | DATE     | APPLICATION NO. | DATE       |
|------------------------|--|----------|-----------------|------------|
| WO 9852546             | A1   | 19981126 | WO 1998-US10661 | 19980522   |
| W:                     | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |          |                 |            |
| RW:                    | GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG   |          |                 |            |
| US 6083526             | A  | 20000704 | US 1997-861485  | 19970522   |
| CA 2290458             | AA   | 19981126 | CA 1998-2290458 | 19980522   |
| AU 9875978             | A1   | 19981211 | AU 1998-75978   | 19980522   |
| EP 1011641             | A1   | 20000628 | EP 1998-923761  | 19980522   |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI   |          |                 |            |
| PRIORITY APPLN. INFO.: |  |          | US 1997-861485  | A 19970522 |
|                        |  |          | WO 1998-US10661 | W 19980522 |
| AB                     | A method of treating or preventing postpartum depression by administration of a composition containing one or more purified, naturally-occurring isoflavonoids is disclosed. Isoflavonoids are administered orally in a dosage of at least 20 mg/serving in foods or as pharmaceutical dosage forms (no data).             |          |                 |            |
| IT                     | 531-95-3, Equol<br>RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)<br>(use of isoflavonoids in treatment or prevention of postpartum depression)  |          |                 |            |
| RN                     | 531-95-3 CAPLUS  |          |                 |            |
| CN                     | 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)  |          |                 |            |

Absolute stereochemistry.

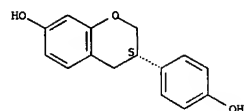


REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS

L12 ANSWER 60 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1998:744937 CAPLUS  
DOCUMENT NUMBER: 130:10659  
TITLE: Treatment or prevention of menopausal symptoms and osteoporosis  
INVENTOR(S): Kelly, Graham Edmund  
PATENT ASSIGNEE(S): Novogen Inc., USA  
SOURCE: PCT Int. Appl., 27 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

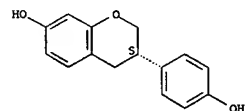
| PATENT NO.             | KIND   | DATE     | APPLICATION NO. | DATE        |
|------------------------|--|----------|-----------------|-------------|
| WO 9850026             | A1   | 19981112 | WO 1998-AU313   | 19980501    |
| W:                     | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LX, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZV   |          |                 |             |
| RW:                    | GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG   |          |                 |             |
| CA 2287965             | AA   | 19981112 | CA 1998-2287965 | 19980501    |
| AU 9870171             | A1   | 19981127 | AU 1998-70171   | 19980501    |
| EP 979074              | A1   | 20000216 | EP 1998-916669  | 19980501    |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO   |          |                 |             |
| JP 2001523258          | T2   | 20011120 | JP 1998-547535  | 19980501    |
| NZ 527735              | A  | 20051028 | NZ 1998-527735  | 19980501    |
| US 6340703             | B1   | 20020122 | US 1998-77590   | 19980602    |
| US 2002035074          | A1   | 20020321 | US 2001-986509  | 20011109    |
| AU 779210              | B2   | 20050113 | AU 2002-10216   | 20020118    |
| PRIORITY APPLN. INFO.: |  |          | AU 1997-6568    | A 19970501  |
|                        |  |          | AU 1997-814     | A 19971208  |
|                        |  |          | AU 1998-70171   | A3 19980501 |
|                        |  |          | WO 1998-AU313   | W 19980501  |
|                        |  |          | US 1998-77590   | A1 19980602 |
| AB                     | A method is described for the treatment or prevention of menopausal symptoms or osteoporosis wherein there is administered to a subject in need of such treatment a therapeutically effective amount of the isoflavone formononetin, or a method for the treatment or prevention of menopausal symptoms wherein there is administered to a subject in need of such treatment a therapeutically effective amount of the isoflavone daidzein, the isoflavone being optionally administered with one or more pharmaceutically acceptable adjuvants, carriers and/or excipients. Therapeutic uses and compns./foods are also described, comprising daidzein or formononetin optionally in association with one or more pharmaceutically acceptable adjuvants, carriers, food components and/or excipients. |          |                 |             |
| IT                     | 531-95-3, Equol 531-95-3D, Equol, derivs.  |          |                 |             |
| RI:                    | BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)   |          |                 |             |
|                        | (menopausal symptoms and osteoporosis treatment and prevention)  |          |                 |             |
| RN                     | 531-95-3 CAPLUS  |          |                 |             |
| CN                     | 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)  |          |                 |             |

Absolute stereochemistry.



RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

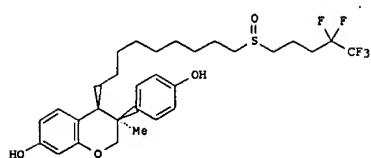
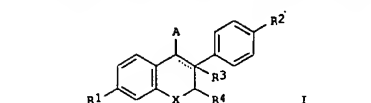
Absolute stereochemistry.



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 61 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1998:402432 CAPLUS  
DOCUMENT NUMBER: 129:81667  
TITLE: Novel benzopyran and thiochroman derivatives useful as antiestrogens  
INVENTOR(S): Jo, Jae Chon; Park, Sung Dae; Lim, Hyun Suk; Kim, Ju Su; Kim, Sung Jin; Morikawa, Kazumi; Kanbe, Yoshitake; Nishimoto, Masahiro; Kim, Myung-hwa  
PATENT ASSIGNEE(S): C & C Research Laboratories, S. Korea  
SOURCE: PCT Int. Appl., 125 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

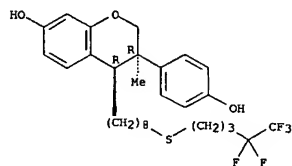
| PATENT NO.             | KIND   | DATE     | APPLICATION NO. | DATE       |
|------------------------|--|----------|-----------------|------------|
| WO 9825916             | A1   | 19980618 | WO 1997-KR265   | 19971213   |
| W:                     | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LX, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |          |                 |            |
| RW:                    | GH, GM, KE, LS, MW, SD, SE, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG   |          |                 |            |
| AU 9854134             | A1   | 19980703 | AU 1998-54134   | 19971213   |
| AU 722089              | B2   | 20000720 |                 |            |
| EP 944613              | A1   | 19990929 | EP 1997-947971  | 19971213   |
| EP 944613              | B1   | 20021009 |                 |            |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI   |          |                 |            |
| CN 1244863             | A  | 20000216 | CN 1997-181472  | 19971213   |
| CN 1120162             | B  | 20030903 |                 |            |
| JP 2000507620          | T2   | 20000620 | JP 1998-526521  | 19971213   |
| JP 3251946             | B2   | 20020128 |                 |            |
| AT 225782              | E  | 20021015 | AT 1997-947971  | 19971213   |
| ES 2185054             | T3   | 20030416 | ES 1997-947971  | 19971213   |
| CA 2275166             | C  | 20030722 | CA 1997-2275166 | 19971213   |
| CA 2275166             | AA   | 19980618 |                 |            |
| US 6153768             | A  | 20001128 | US 1999-319616  | 19990608   |
| PRIORITY APPLN. INFO.: |  |          | KR 1996-65301   | A 19961213 |
|                        |  |          | KR 1997-26915   | A 19970624 |
|                        |  |          | WO 1997-KR265   | W 19971213 |
| OTHER SOURCE(S):       | HARPAT 129:81667   |          |                 |            |
| GI                     |  |          |                 |            |



AB The invention relates to novel benzopyran derivs. having anti-estrogenic activity. More specifically, the invention relates to novel benzopyran and thiochroman derivs. I and pharmaceutically acceptable salts thereof [in which the dashed line = optional pi bonds; R1, R2 = H, OH, or OR; R = acyl or alkyl; R3 = H, alkyl, haloalkyl, or null when R3 is absent; R4 = H or alkyl; A = (CH2)mSONR5, C6H4O(CH2)mSONR5, C6H4O(CH2)mNR6R7, (CH2)mSON(CH2)pNR6R7; R5, R6, and R7 = H, alkyl, haloalkyl, alkenyl, or haloalkenyl; or NR6R7 = 4- to 8-membered heterocyclic ring which can be substituted with R5; X = O, S, or NR8; R8 = H or alkyl; m = 2-15; n = 0-2; and p = 0-4]. Also disclosed are a preparation process, and antiestrogenic pharmaceutical compns. which contains I as an active component. Examples include over 80 syntheses and 4 bioassays. For example, compound II was prepared by a 7-step sequence involving: (1) double-O-methoxymethylation and 3-methylation of 7-hydroxy-3-(4-hydroxyphenyl)-2,3-dihydro-4H-benzopyran-4-one (66%), (2) 4-alkynylation with HC.tpi.bond.C(CH2)7OSiMe2CMe3 (100%), (3) desilylation (33%), O-tosylation (88%), thioetherification (97%), deprotection of OH groups (66%), and S-oxidation with NaIO4 (73%). The antiestrogenic and MCF-7 cell growth-inhibiting activities of II were comparable or superior to the related antiestrogen ZM-189154, and the side effect of decreased bone mineral d. in II was not only reduced but to some extent reversed.

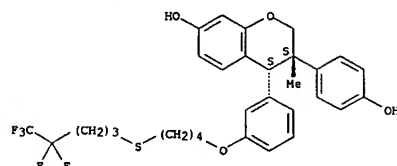
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 RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of benzopyran and thiochroman derivs. as antiestrogens)  
 RN 209324-87-8 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[9-[(4,4,5,5,5-pentafluoropentyl)sulfinyl]nonyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



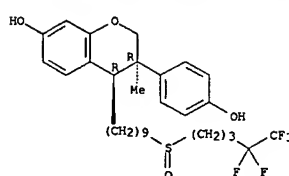
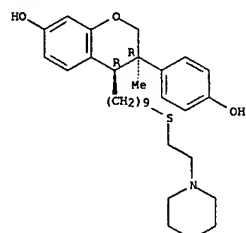
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 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[3-[(4,4,5,5,5-pentafluoropentyl)thio]butoxy]phenyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



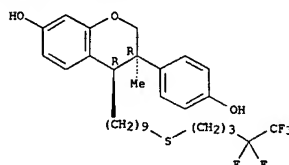
RN 209325-20-2 CAPLUS  
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Relative stereochemistry.



IT 209324-86-7P 209324-92-5P 209325-16-6P  
 209325-20-2P 209325-27-9P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (preparation of benzopyran and thiochroman derivs. as antiestrogens)  
 RN 209324-86-7 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[9-[(4,4,5,5,5-pentafluoropentyl)thio]nonyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

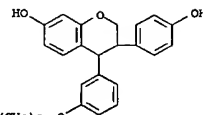
Relative stereochemistry.



RN 209324-92-5 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[8-[(4,4,5,5,5-pentafluoropentyl)thio]octyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

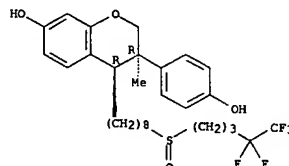
RN 209325-27-9 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-[3-[[5-[(4,4,5,5,5-pentafluoropentyl)thio]pentyl]oxy]phenyl]- (9CI) (CA INDEX NAME)



F3C-CF2-(CH2)3-S-(CH2)5-O-

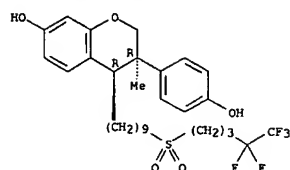
IT 209324-93-6P 209324-94-7P 209324-99-2P  
 209325-17-7P 209325-18-8P 209325-21-3P  
 209325-28-0P 209325-29-1P 209325-59-7P  
 209325-60-0P 209325-61-1P 209325-62-2P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of benzopyran and thiochroman derivs. as antiestrogens)  
 RN 209324-93-6 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[8-[(4,4,5,5,5-pentafluoropentyl)sulfinyl]octyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

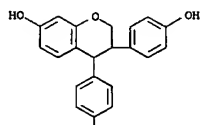


RN 209324-94-7 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[9-[(4,4,5,5,5-pentafluoropentyl)sulfonyl]nonyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



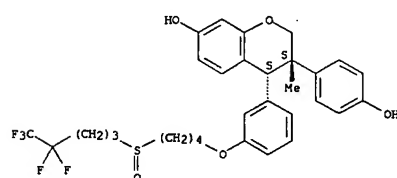
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CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-[[5-[(4,4,5,5,5-pentafluoropentyl)thio]pentyl]oxy]phenyl]- (9CI) (CA INDEX NAME)



F<sub>3</sub>C-CF<sub>2</sub>-(CH<sub>2</sub>)<sub>3</sub>-S-(CH<sub>2</sub>)<sub>5</sub>-O

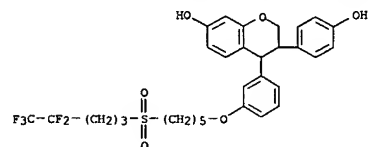
RN 209325-17-7 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[3-[[4-[(4,4,5,5,5-pentafluoropentyl)sulfinyl]butoxy]phenyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



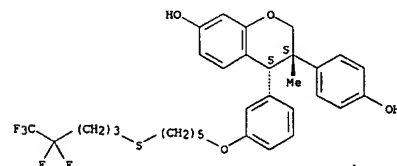
RN 209325-18-8 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[3-[[4-[(4,4,5,5,5-pentafluoropentyl)sulfonyl]butoxy]phenyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



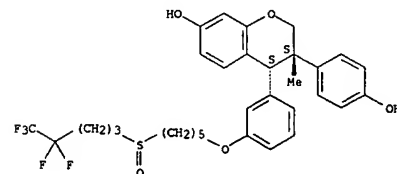
RN 209325-59-7 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[3-[[5-[(4,4,5,5,5-pentafluoropentyl)thio]pentyl]oxy]phenyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

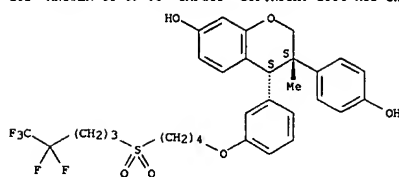


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Relative stereochemistry.

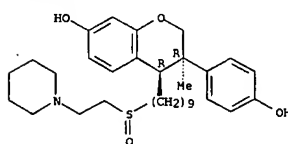


RN 209325-61-1 CAPLUS  
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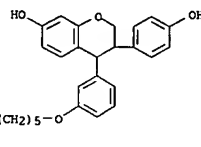


RN 209325-21-3 CAPLUS  
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Relative stereochemistry.

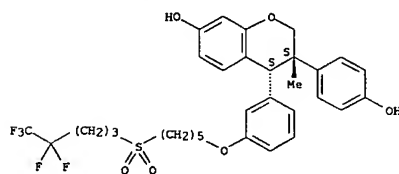


RN 209325-28-0 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-[3-[[5-[(4,4,5,5,5-pentafluoropentyl)sulfinyl]pentyl]oxy]phenyl]- (9CI) (CA INDEX NAME)



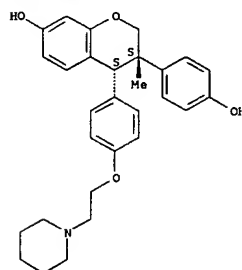
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CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-[3-[[5-[(4,4,5,5,5-pentafluoropentyl)sulfonyl]pentyl]oxy]phenyl]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

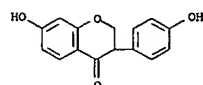


RN 209325-62-2 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-3-methyl-4-[4-[2-(1-piperidinyl)ethoxy]phenyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 17238-05-0  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(starting material: preparation of benzopyran and thiochroman derivs. as antiestrogens)  
RN 17238-05-0 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



=> s 19 and flavone  
11156 FLAVONE  
10960 FLAVONES  
17916 FLAVONE  
(FLAVONE OR FLAVONES)  
L11 29 L9 AND FLAVONE

=> s 19  
666114 COMPOSITION  
305861 COMPOSITIONS  
965659 COMPOSITION  
(COMPOSITION OR COMPOSITIONS)  
1422997 COMPN  
576323 COMPNS  
1744535 COMPN  
(COMPN OR COMPNS)  
2195940 COMPOSITION  
(COMPOSITION OR COMPN)  
L12 80 L8 AND COMPOSITION

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THE ESTIMATED COST FOR THIS REQUEST IS 408.80 U.S. DOLLARS  
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y



L12 ANSWER 1 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 20061740173 CAPLUS  
 DOCUMENT NUMBER: 145:159802  
 TITLE: Combination radiotherapy and chemotherapy compositions using isoflavone compounds, and methods for the treatment of cancer  
 INVENTOR(S): Kelly, Graham Edmund; Brown, David  
 PATENT ASSIGNEE(S): Australia  
 SOURCE: U.S. Pat. Appl. Publ., 15 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| US 2006167037 | A1   | 20060727 | US 2006-547077  | 20060302 |
| WO 2005049009 | A1   | 20050602 | WO 2004-AU1619  | 20041119 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

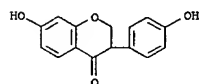
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

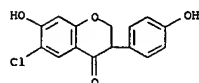
AB The invention discloses combination therapies involving radiotherapy and chemotherapy. In particular, the invention discloses the use of isoflavones or analogs thereof in combination with radiotherapy or chemotherapy in the treatment of cancer and related diseases and conditions. The invention also relates to compna. and agents useful for same and methods for their manufacture

IT 17238-05-0 21554-71-2 94105-90-5  
 168207-15-6 168207-16-7 328406-44-6  
 328406-47-9 442150-42-7 442150-43-8  
 442150-61-0 852536-34-6 852536-35-7  
 852536-36-8 852536-37-9 852536-39-1  
 852536-41-5 852536-42-6 852536-44-8  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (combination radio- and chemotherapy compns. using isoflavone compds. for treatment of cancer)

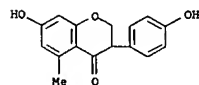
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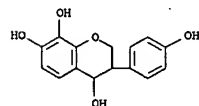
L12 ANSWER 1 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



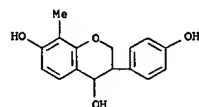
RN 328406-47-9 CAPLUS  
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RN 442150-42-7 CAPLUS  
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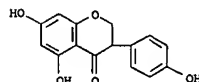
RN 442150-43-8 CAPLUS  
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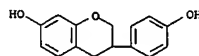
RN 442150-61-0 CAPLUS  
 CN 2H-1-Benzopyran-4,7-diol, 3,4-dihydro-3-(4-hydroxyphenyl)-5-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 1 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

RN 21554-71-2 CAPLUS  
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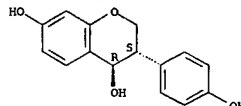


RN 94105-90-5 CAPLUS  
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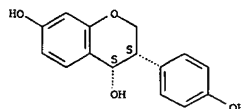
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Relative stereochemistry.



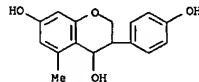
RN 168207-16-7 CAPLUS  
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Relative stereochemistry.

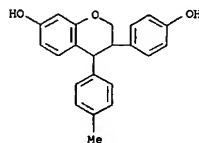


RN 328406-44-6 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 6-chloro-2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

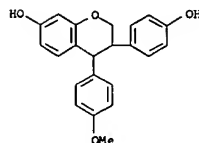
L12 ANSWER 1 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



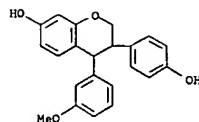
RN 852536-34-6 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-(4-methylphenyl)- (9CI) (CA INDEX NAME)



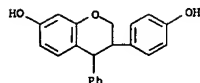
RN 852536-35-7 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)



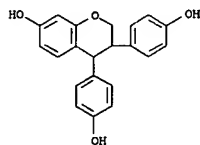
RN 852536-36-8 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-(3-methoxyphenyl)- (9CI) (CA INDEX NAME)



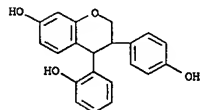
RN 852536-37-9 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-phenyl- (9CI) (CA INDEX NAME)



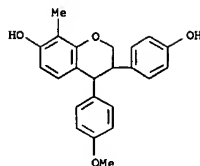
RN 852536-39-1 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3,4-bis(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



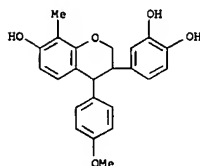
RN 852536-41-5 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-4-(2-hydroxyphenyl)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 852536-42-6 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-(4-methoxyphenyl)-8-methyl- (9CI) (CA INDEX NAME)



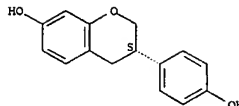
RN 852536-44-8 CAPLUS  
CN 1,2-Benzenediol, 4-[3,4-dihydro-7-hydroxy-4-(4-methoxyphenyl)-8-methyl-2H-1-benzopyran-3-yl]- (9CI) (CA INDEX NAME)



ACCESSION NUMBER: 2006:676965 CAPLUS  
DOCUMENT NUMBER: 145:110483  
TITLE: Plant extract compositions for treating diabetes or obesity  
INVENTOR(S): Ono, Mitsunori  
PATENT ASSIGNEE(S): USA  
SOURCE: PCT Int. Appl., 14 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 2006074278   | A2   | 20060713 | WO 2006-US279   | 20060104 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW   |      |          |                 |          |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  |      |          |                 |          |
| US 2006188590   | A1   | 20060824 | US 2006-326102  | 20060104 |
| PRIORITY APPLN. INFO.: US 2005-641642P P 20050105   |      |          |                 |          |
| AB This invention relates to a composition that includes two compds. selected from a group of nine members, i.e., an -glucosidase inhibitor, an intestinal glucose transporter inhibitor, a glycation inhibitor, a nitric oxide production inhibitor, an aldose reductase inhibitor, a PPAR agonist, an adipocytokine activator, a glucose uptake enhancer, and a thermogenesis enhancer, in which the two compds. are two different members; and each compound is naturally occurring in a plant and is provided in the form of a plant extract. This invention also relates to a method of treating diabetes or obesity with the above-mentioned composition. A composition contained taurine, rutin, grape seed extract(containing procyanidin), soy extract(containing genistein), bilberry extract (containing anthocyanin) and sucralose. |      |          |                 |          |
| IT 531-95-3, Equol<br>RI: NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)<br>(plant extract compns. for treating diabetes or obesity)  |      |          |                 |          |
| RN 531-95-3 CAPLUS<br>CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)  |      |          |                 |          |

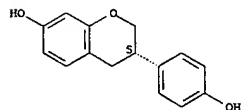
Absolute stereochemistry.



L12 ANSWER 3 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2006:494453 CAPLUS  
DOCUMENT NUMBER: 144:474990  
TITLE: Oral composition containing difructose  
anhydride  
INVENTOR(S): Tamura, Akiko; Shigematsu, Norihiro; Hara, Hiroshi  
PATENT ASSIGNEE(S): Fanci Corporation, Japan  
SOURCE: PCT Int. Appl., 12 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

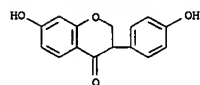
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|---|------|----------|-----------------|----------|
| WO 2006054429   | A1   | 20060526 | WO 2005-JP19597 | 20051025 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, GU, HD, HE, HF, HG, HI, IL, IN, IS, JP, KE, KG, KH, KI, KM, KN, KR, KS, KU, KZ, LA, LB, LC, LD, LE, LG, LH, LI, LU, LV, LY, MA, MD, ME, MG, MH, MI, MK, MN, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, PU, PY, RE, RO, RU, SC, SD, SE, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SR, SS, ST, SU, SV, SW, SY, SZ, TD, TE, TF, TG, TH, TJ, TK, TL, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VE, VJ, VN, YU, ZA, ZH, ZW |      |          |                 |          |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KS, KZ, MD, RU, TJ, TM  |      |          |                 |          |
| JP 2006143623   | A2   | 20060608 | JP 2004-333663  | 20041117 |
| PRIORITY APPLN. INFO.: JP 2004-333663 A 20041117  |      |          |                 |          |
| AB An oral composition for potentiating the production of equol by an intestinal bacterium contains, as the active ingredient, difructose anhydride for activating the equol productivity of the intestinal bacterium.  |      |          |                 |          |
| IT 531-95-3, Equol  |      |          |                 |          |
| RI: BSU (Biological study, unclassified); BIOL (Biological study) (oral compns. containing difructose anhydride for potentiating production of equol by intestinal bacteria)  |      |          |                 |          |
| RN 531-95-3 CAPLUS  |      |          |                 |          |
| CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)  |      |          |                 |          |

Absolute stereochemistry.



REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2006:307727 CAPLUS  
DOCUMENT NUMBER: 144:411560  
TITLE: Administration of equol-producing bacteria alters the equol production status in the simulator of the gastrointestinal microbial ecosystem (SHIME)  
AUTHOR(S): Decroos, Karel; Eeckhaut, Ellen; Possemiers, Sam; Verstraete, Willy  
CORPORATE SOURCE: Laboratory of Microbial Ecology and Technology (LabMET), Ghent University, Ghent, B-9000, Belg.  
SOURCE: Journal of Nutrition (2006), 136(4), 946-952  
CODEN: JONIAI; ISSN: 0022-3166  
PUBLISHER: American Society for Nutrition  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The intestinal microbial transformation of daidzein, one of the principal isoflavones from soy, into the isoflavan equol is subjected to a high interindividual variability. The latter compound is considered to have a higher biol. activity than its precursor; hence, there is interest in dietary applications that modulate this important biotransformation. In 2 sep. expts., we administered a mixed microbial culture (EPC4), which we had isolated previously and which efficiently transforms daidzein into equol, to the simulator of the Human Intestinal Microbial Ecosystem (SHIME). The SHIME was fed soy germ powder and inoculated with fecal samples from two nonequol producing individuals. Equol production was induced in the distal colon compartments in both expts., 5-6 d after the start of the treatment; 2 wk after interrupting the addition of EPC4, equol was still produced in high amts. There are large interregional differences in daidzein metabolism in the simulated colon. Furthermore, no major shifts in the composition and activity of the microbial communities were caused by the supplementation with the microbial consortium. Although further confirmation in in vivo studies is required, these results validate the concept that administering EPC4 could constitute a novel means for converting a nonequol-producer into a producer.

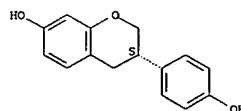
IT 531-95-3, Equol 17238-05-0, Dihydrodaidzein

RI: BSU (Biological study, unclassified); BIOL (Biological study) (administration of equol-producing bacteria alters fatty acids and equol production in simulator of gastrointestinal microbial ecosystem (SHIME))

RN 531-95-3 CAPLUS

CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

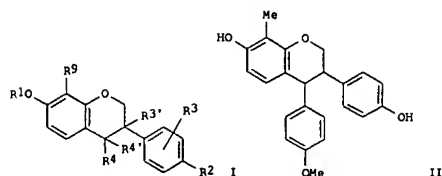


RN 17238-05-0 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 5 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2006:295504 CAPLUS  
DOCUMENT NUMBER: 144:331172  
TITLE: Preparation of substituted chroman derivatives for use in pharmaceutical compositions as anti-cancer agents  
INVENTOR(S): Heaton, Andrew; Husband, Alan James  
PATENT ASSIGNEE(S): Novogen Research Pty Ltd., Australia  
SOURCE: PCT Int. Appl., 73 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 4  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 2006032085   | A1   | 20060330 | WO 2005-AU1435  | 20050921 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, GU, HD, HE, HF, HG, HI, IL, IN, IS, JP, KE, KG, KH, KI, KM, KN, KR, KS, KU, KZ, LA, LB, LC, LD, LE, LG, LH, LI, LU, LV, LY, MA, MD, ME, MG, MH, MI, MK, MN, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, PU, PY, RE, RO, RU, SC, SD, SE, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SR, SS, ST, SU, SV, SW, SY, SZ, TD, TE, TF, TG, TH, TJ, TK, TL, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VE, VJ, VN, YU, ZA, ZH, ZW |      |          |                 |          |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KS, KZ, MD, RU, TJ, TM  |      |          |                 |          |
| WO 2005049008   | A1   | 20050602 | WO 2004-AU1619  | 20041119 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, GU, HD, HE, HF, HG, HI, IL, IN, IS, JP, KE, KG, KH, KI, KM, KN, KR, KS, KU, KZ, LA, LB, LC, LD, LE, LG, LH, LI, LU, LV, LY, MA, MD, ME, MG, MH, MI, MK, MN, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, PU, PY, RE, RO, RU, SC, SD, SE, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SR, SS, ST, SU, SV, SW, SY, SZ, TD, TE, TF, TG, TH, TJ, TK, TL, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VE, VJ, VN, YU, ZA, ZH, ZW |      |          |                 |          |
| RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KS, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
| AU 2005201855   | A1   | 20060406 | AU 2005-201855  | 20050503 |
| US 2006074126   | A1   | 20060406 | US 2005-230505  | 20050921 |
| US 2006074127   | A1   | 20060406 | US 2005-230726  | 20050921 |
| PRIORITY APPLN. INFO.: US 2004-611300P P 20040921   |      |          |                 |          |
| WO 2004-AU1619 A 20041119   |      |          |                 |          |
| AU 2005-201855 A 20050503   |      |          |                 |          |
| AU 2003-906386 A 20031119   |      |          |                 |          |
| US 2004-611299P P 20040921  |      |          |                 |          |
| JP 2004-315009 A 20041029   |      |          |                 |          |
| AU 2004-906363 A 20041105   |      |          |                 |          |
| US 2005-676934P P 20050503  |      |          |                 |          |

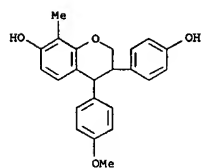
OTHER SOURCE(S): MARPAT 144:331172  
G1



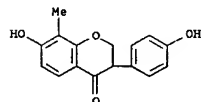
AB Novel isoflavanoid chroman derivs., such as I [ R1 = H, alkyl, cycloalkyl, acyl; R2, R3 = H, OH, alkoxy, alkyl, cycloalkyl, halogen, acyl, etc., with the exception that both R2 and R3 = H; R4 = C6H2RaRbRc, Ra-c = H, OH, alkyl, alkoxy, cycloalkyl, acyl, alkylamino, etc.; R3'R4' = bond or R3' = H, R4' = H, OH; R9 = H, OH, alkyl, alkoxy, cycloalkyl, halogen], were prepared for use as anti-cancer and chemotherapeutic selective agents. These chromans were claimed for use in the treatment of cancer that is of epithelial origin (including prostate, ovarian, cervical, breast, gallbladder, pancreatic, colorectal, renal, and non-small lung cancer cells), of mesenchymal origin (including melanoma, mesothelioma and sarcoma cancer cells) or of neural origin (including glioma cancer cells). These chromans are suitable for coadministration with other anticancer drugs, such as cisplatin, dehydroepiandrosterone or taxol. Thus, 3-(4-hydroxyphenyl)-4-(4-methoxyphenyl)-8-methyl-3,4-dihydro-2H-chromen-7-ol (II) was prepared via a multistep synthetic sequence starting from 2-methylresorcinol, 4-hydroxyphenylacetic acid and 4-methoxyphenylmagnesium bromide.

IT 852536-42-6P  
 RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of substituted chroman derivs. for use in pharmaceutical compns. as anti-cancer agents)

RN 852536-42-6 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-(4-methoxyphenyl)-8-methyl- (9CI) (CA INDEX NAME)



IT 880872-56-0P 880872-60-6P 880872-62-8P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

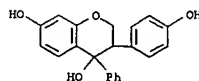


REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

(prepn. of substituted chroman derivs. for use in pharmaceutical compns. as anti-cancer agents)

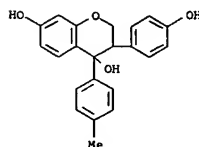
RN 880872-56-0 CAPLUS

CN 2H-1-Benzopyran-4,7-diol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-phenyl- (9CI) (CA INDEX NAME)



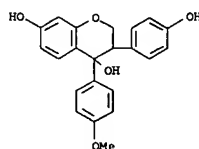
RN 880872-60-6 CAPLUS

CN 2H-1-Benzopyran-4,7-diol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-(4-methylphenyl)- (9CI) (CA INDEX NAME)



RN 880872-62-8 CAPLUS

CN 2H-1-Benzopyran-4,7-diol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)



IT 880772-81-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of substituted chroman derivs. for use in pharmaceutical compns. as anti-cancer agents)

RN 880772-81-6 CAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-8-methyl- (9CI) (CA INDEX NAME)

ACCESSION NUMBER: 2006:295803 CAPLUS

DOCUMENT NUMBER: 144:331171

TITLE: Preparation of chroman derivatives for use in pharmaceutical compositions for the treatment of cancer

INVENTOR(S): Heaton, Andrew; Husband, Alan James  
 PATENT ASSIGNEE(S): Novogen Research Pty Ltd., Australia  
 SOURCE: PCT Int. Appl., 84 pp.  
 CODE: FIXX02

DOCUMENT TYPE: Patent

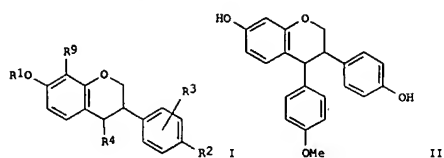
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 2006032086   | A1   | 20060330 | WO 2005-AU1436  | 20050921 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |      |          |                 |          |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  |      |          |                 |          |
| JP 2006096734   | A2   | 20060413 | JP 2004-315009  | 20041029 |
| WO 2005049008   | A1   | 20050602 | WO 2004-AU1619  | 20041119 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW             |      |          |                 |          |
| RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
| CA 2506238  | AA   | 20060321 | CA 2005-2506238 | 20050503 |
| AU 2005201855   | A1   | 20060406 | AU 2005-201855  | 20050503 |
| US 2006074126   | A1   | 20060406 | US 2005-230505  | 20050921 |
| PRIORITY APPLN. INFO.:  |      |          |                 |          |
| US 2004-611299P P 20040921  |      |          |                 |          |
| JP 2004-315009 A 20041029   |      |          |                 |          |
| AU 2004-906363 A 20041105   |      |          |                 |          |
| WO 2004-AU1619 A 20041119   |      |          |                 |          |
| AU 2005-201855 A 20050503   |      |          |                 |          |
| US 2005-676934P P 20050503  |      |          |                 |          |
| AU 2003-906386 A 20031119   |      |          |                 |          |
| US 2004-611300P P 20040921  |      |          |                 |          |

OTHER SOURCE(S): MARPAT 144:331171



II

AB Novel isoflavanoid chroman derivs., such as I [R1 = H, alkyl, cycloalkyl, acyl; R2, R3 = H, OH, alkoxy, alkyl, cycloalkyl, halogen, acyl, etc., with the exception that both R2 and R3 = H; R4 = C6H2RaRbRc, Ra-c = H, OH, alkyl, alkoxy, cycloalkyl, acyl, alkylamino, etc.; R9 = H, OH, alkyl, alkoxy, cycloalkyl, halogen], were prepared for therapeutic use as antitumor chemotherapeutic selective agents. These chromans were claimed for use in the treatment of cancers of epithelial origin (including prostate, ovarian, cervical, breast, gallbladder, pancreatic, colorectal, renal, and non-small lung cancer cells), of mesenchymal origin (including melanoma, mesothelioma and sarcoma cancer cells) or of neural origin (including glioma cancer cells). These chromans also showed synergistic toxicity in cancer cells when combined with other anti-cancer agents, such as cisplatin, paclitaxel and gemcitabine, camptothecin, topotecan and doxorubicin. Thus, 3-(4-hydroxyphenyl)-4-(4-methoxyphenyl)chroman-7-ol (II) was prepared via a multistep synthetic sequence starting from daidzein and 4-methoxyphenylmagnesium bromide.

IT 852536-34-6P 852536-36-8P 852536-37-9P

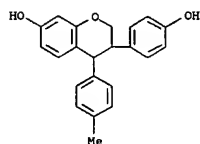
852536-41-5P 880771-71-1P 880771-74-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(claimed compound; preparation of isoflavanoid chroman derivs. for use in pharmaceutical compns. for treatment of cancer)

RN 852536-34-6 CAPLUS

CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-(4-methylphenyl)-(9CI) (CA INDEX NAME)

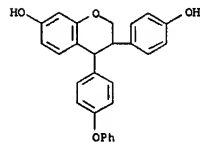


RN 852536-36-8 CAPLUS

CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-(3-methoxyphenyl)-(9CI) (CA INDEX NAME)

RN 880771-74-4 CAPLUS

CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-(4-phenoxyphenyl)-(9CI) (CA INDEX NAME)



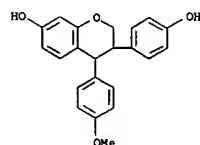
IT 852536-35-7P, 3-(4-Hydroxyphenyl)-4-(4-methoxyphenyl)chroman-7-ol

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of isoflavanoid chroman derivs. for use in pharmaceutical compns. for treatment of cancer)

RN 852536-35-7 CAPLUS

CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-(4-methoxyphenyl)-(9CI) (CA INDEX NAME)



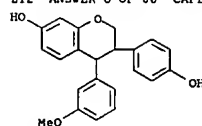
IT 852536-39-1P

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of isoflavanoid chroman derivs. for use in pharmaceutical compns. for treatment of cancer)

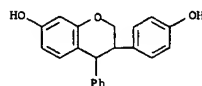
RN 852536-39-1 CAPLUS

CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3,4-bis(4-hydroxyphenyl)-(9CI) (CA INDEX NAME)



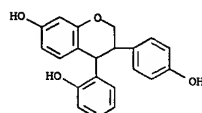
RN 852536-37-9 CAPLUS

CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-phenyl- (9CI) (CA INDEX NAME)



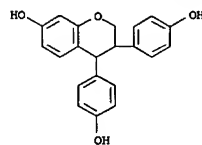
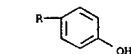
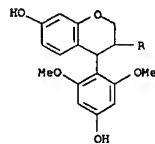
RN 852536-41-5 CAPLUS

CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-4-(2-hydroxyphenyl)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 880771-71-1 CAPLUS

CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-4-(4-hydroxy-2,6-dimethoxyphenyl)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



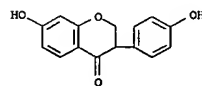
IT 17238-05-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of isoflavanoid chroman derivs. for use in pharmaceutical compns. for treatment of cancer)

RN 17238-05-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

12

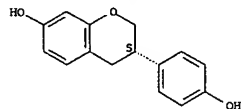
THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2006:271887 CAPLUS  
DOCUMENT NUMBER: 144:291378  
TITLE: Equol-enriched plant extract obtainable by fermentation  
INVENTOR(S): Heyda, Alessandro  
PATENT ASSIGNEE(S): Macfarma Holding S.p.A., Italy  
SOURCE: Eur. Pat. Appl., 5 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

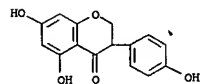
| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| EP 1637609  | A1   | 20060322 | EP 2005-13769   | 20050627 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU |      |          |                 |          |

PRIORITY APPLN. INFO.: IT 2004-M11342 A 20040705  
AB An equol-enriched plant extract obtainable through fermentation with Eubacterium limosum of isoflavones naturally contained in the extract is herein disclosed. The extract can be used in compns. useful for the treatment of the post-menopausal syndrome.  
IT 531-95-3P, Equol  
RL: BMF (Bioindustrial manufacture); BIOL (Biological study); PREP (Preparation)  
(equol-enriched plant extract obtainable by fermentation)  
RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

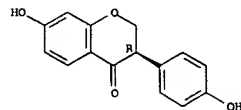


L12 ANSWER 8 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
ACCESSION NUMBER: 2006:271887 CAPLUS  
DOCUMENT NUMBER: 144:291378  
TITLE: Equol-enriched plant extract obtainable by fermentation  
INVENTOR(S): Heyda, Alessandro  
PATENT ASSIGNEE(S): Macfarma Holding S.p.A., Italy  
SOURCE: Eur. Pat. Appl., 5 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:



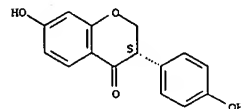
RN 58865-02-4 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 879559-75-8 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

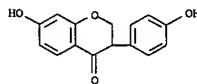


REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 8 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2006:269251 CAPLUS  
DOCUMENT NUMBER: 144:329902  
TITLE: Novel rumen microorganism capable of metabolizing isoflavones  
INVENTOR(S): Kim, Su-Il; Wang, Xiu-Ling; Kim, Ho-Jin; Hur, Ho-Gil; Kim, Ki-Tae; Park, Seong-Whan; Kim, Eun-Kyung; Hwang, Kyung-Hoon  
PATENT ASSIGNEE(S): Seoul National University Industry Foundation, S. Korea; Takara Korea Biomedical Inc.  
SOURCE: PCT Int. Appl., 24 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 2006031008   | A1   | 20060323 | WO 2005-KR1292  | 20050504 |
| V: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |      |          |                 |          |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  |      |          |                 |          |

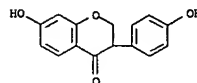
PRIORITY APPLN. INFO.: KR 2004-74049 A 20040916  
AB The present invention provides a novel microorganism capable of metabolizing isoflavone. More particularly, the invention provides a novel microorganism capable of metabolizing daidzein and genistein into dihydrodaidzein and dihydrogenistein resp. under anaerobic conditions. The novel microorganism according to the invention is capable of metabolizing isoflavone and it thus enables the production of isoflavone metabolites. Also, compns. comprising the microorganism and isoflavone can be used for prevention or treatment of climacteric diseases especially, osteoporosis and they can be used as antioxidants, anticancer agents, antimutagens, etc.  
IT 17238-05-0P, Dihydrodaidzein 21554-71-2P, Dihydrogenistein 58865-02-4P, R-Dihydrodaidzein 879559-75-8P, S-Dihydrodaidzein  
RL: BMF (Bioindustrial manufacture); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)  
(novel rumen microorganism capable of metabolizing isoflavones)  
RN 17238-05-0 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 9 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2006:268740 CAPLUS  
DOCUMENT NUMBER: 144:329901  
TITLE: Novel Eggerthella strain capable of metabolizing dihydrodaidzein to equol  
INVENTOR(S): Kim, Su-Il; Wang, Xiu-Ling; Kim, Chung-Sei; Hur, Ho-Gil; Kim, Ki-Tae; Park, Seong-Whan; Park, Hyun-Jung; Lee, Hae-Kwang  
PATENT ASSIGNEE(S): Seoul National University Industry Foundation, S. Korea; Takara Korea Biomedical Inc.  
SOURCE: PCT Int. Appl., 21 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

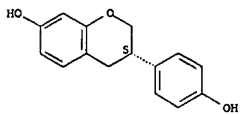
| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 2006031007   | A1   | 20060323 | WO 2005-KR1285  | 20050503 |
| V: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |      |          |                 |          |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  |      |          |                 |          |

PRIORITY APPLN. INFO.: CASREACT 144:329901 XR 2004-74048 A 20040916  
OTHER SOURCE(S):  
AB The present invention provides a novel microorganism capable of metabolizing dihydrodaidzein into equol. More particularly, the invention provides Eggerthella sp. microorganism capable of metabolizing dihydrodaidzein into equol under anaerobic conditions. The novel microorganism according to the invention is capable of metabolizing DHD into equol and it thus enables the production of equol from DHD. Also, compns. comprising the microorganism and DHD can be used for prevention or treatment of climacteric diseases especially, osteoporosis, and they can be used as antioxidants, anticancer agents, antimutagens, etc.  
IT 17238-05-0P, Dihydrodaidzein  
RL: BCP (Biochemical process); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)  
(novel Eggerthella strain capable of metabolizing dihydrodaidzein to equol)  
RN 17238-05-0 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 9 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
IT 531-95-3P, Equol  
RL: BMF (Bioindustrial manufacture); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)  
(novel Eggerthella strain capable of metabolizing dihydrodaidzein to equol)  
RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

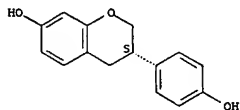
Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 10 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2006:255941 CAPLUS  
DOCUMENT NUMBER: 144:345988  
TITLE: Cooperative effects of isoflavones and exercise on bone and lipid metabolism in postmenopausal Japanese women: a randomized placebo-controlled trial  
AUTHOR(S): Wu, Jian; Oka, Jun; Higuchi, Mitsuru; Tabata, Izumi; Toda, Toshiya; Fujioaka, Maiko; Fuku, Noriyuki; Teramoto, Takanori; Okuhira, Takenori; Ueno, Tomomi; Uchiyama, Shigeto; Urata, Kouji; Yamada, Kazuhiko; Ishimi, Yoshiko  
CORPORATE SOURCE: Division of Applied Food Research, National Institute of Health and Nutrition, Tokyo, 162-8636 Japan  
SOURCE: Metabolism, Clinical and Experimental (2006), 55(4), 423-433  
CODEN: METAAJ; ISSN: 0026-0495  
PUBLISHER: Elsevier Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Cooperative effects of isoflavones and exercise on bone and lipid metabolism have been exhibited in estrogen-deficient animals; however, results from clin. trials have not been published. In this study, we determined the effects of isoflavone intake and walking and their interaction on bone and lipid metabolism in postmenopausal women over 24 wk. The bioavailability and metabolism of isoflavones (daidzein in particular) were also examined to clarify the mechanism of their bone-protective effects in humans. One hundred twenty-eight subjects were randomly assigned to 4 groups: placebo; placebo combined with walking (3 times per wk); isoflavone intake (75 mg of isoflavones conjugates per day); and isoflavone combined with walking. The subjects were classified by equol status (producers or nonproducers) as identified using production of equol from daidzein in fecal culture.  
Bone mineral d. (BMD), body composition, and serum concns. of isoflavones were assessed. Serum high-d. lipoprotein cholesterol concentration significantly increased (6.1%,  $P = .03$ ), and fat mass in the whole body significantly decreased (-4.3%,  $P = .0003$ ) from the baseline in the combined intervention group. There were no significant differences in BMD between baseline and postintervention in any of the treatment groups. However, the percent changes in BMD in equol producers were -0.53% and +0.13% in the sub-whole body and total hip, resp. This was significantly different compared with -1.35 and -1.77 for the sub-whole body and total hip, resp., in nonproducers in the isoflavone group ( $P = .049$  and .040, resp.). The mean serum equol concentration was significantly higher in equol producers than in nonproducers in the isoflavone groups, but not in the placebo group. The combination of isoflavones and exercise exhibited favorable effects on serum lipid and body composition of postmenopausal women. The findings of this study suggest that the preventive effects of isoflavones on bone loss depend on the individual's intestinal flora for equol production  
production  
IT 531-95-3, Equol  
RL: BSU (Biological study, unclassified); BIOL (Biological study) (cooperative effects of isoflavones and exercise on bone and lipid metabolism in postmenopausal Japanese women)  
RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

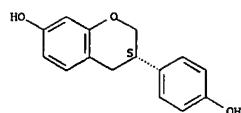
L12 ANSWER 10 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
Absolute stereochemistry.



REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 11 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2006:105092 CAPLUS  
DOCUMENT NUMBER: 144:429684  
TITLE: Postmenopausal bone mineral density in relation to soy isoflavone-metabolizing phenotypes  
AUTHOR(S): Frankenfeld, Cara L.; McTiernan, Anne; Thomas, Wendy K.; LaCroix, Kristin; McVarish, Lynda; Holt, Victoria L.; Schwartz, Stephen M.; Lampe, Johanna W.  
CORPORATE SOURCE: Cancer Prevention Program, Fred Hutchinson Cancer Research Center, Seattle, WA, 98109-1024, USA  
SOURCE: Maturitas (2006), 53(3), 315-324  
CODEN: MATUDK; ISSN: 0378-5122  
PUBLISHER: Elsevier Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Intestinal bacterial metabolize the soy isoflavone daidzein to O-desmethylanopolsin (O-DMA) or equol. Some individuals do not excrete O-DMA or equol after soy consumption, suggesting they do not harbor bacteria capable of producing these metabolites. The aim of this study was to evaluate bone mineral d. (BMD) in relation to presence of these urinary metabolites. BMD, determined by whole-body dual x-ray absorptiometry scan, was age-adjusted and evaluated in relation to O-DMA-producer and equol-producer phenotypes in 92 postmenopausal women, aged 50-75 years. Women consumed supplemental soy foods (daidzein source) for 3 days and collected a first-void urine sample on the fourth day in order to determine metabolic phenotypes. In O-DMA producers (n = 76) compared to O-DMA non-producers (n = 16), greater total, leg and head BMD ( $p < 0.05$ ) were observed. Total BMD among the O-DMA producers (geometric mean = 1.04 g/cm<sup>2</sup>) was 6% greater than total BMD among the O-DMA non-producers (geometric mean = 0.98 g/cm<sup>2</sup>). Total and site-specific BMD did not differ between equol producers (n = 24) and non-producers (n = 68) ( $p > 0.05$ ). In exploratory analyses, among regular soy consumers, spinal BMD was 20% lower among the equol producers than non-producers, whereas, among soy non-consumers, no such difference was observed ( $p$ -interaction  $< 0.05$ ).  
Among equol producers, circulating estrone and free estradiol concns. were inversely or not associated with total BMD, whereas, among equol non-producers, these hormones were pos. associated ( $p$ -interaction  $< 0.05$ ). Our results provide evidence that intestinal bacterial composition may influence BMD in postmenopausal women. Further studies characterizing assocns. of intestinal bacterial profiles with BMD are warranted.  
IT 531-95-3, Equol  
RL: BSU (Biological study, unclassified); BIOL (Biological study) (circulating estrone and free estradiol were inversely or not associated with total bone mineral d. in soy isoflavone daidzein metabolite equol producing postmenopausal woman)  
RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

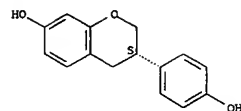
ACCESSION NUMBER: 2005:1326238 CAPLUS  
 DOCUMENT NUMBER: 144:50693  
 TITLE: Isoflavones and functional foods alter the dominant intestinal microbiota in postmenopausal women  
 AUTHOR(S): Clavel, Thomas; Fallani, Matteo; Lepage, Patricia; Levenez, Florence; Mathy, Jacinthe; Rochet, Violaine; Serezat, Michele; Sutren, Malene; Henderson, Gemma; Bennetau-Pelissier, Catherine; Tondy, Françoise; Blaut, Michael; Dore, Joel; Coxam, Veronique  
 CORPORATE SOURCE: Institut National de la Recherche Agronomique, Unite d'Ecologie et de Physiologie du Systeme Digestif, Jouy-en-Josas, Fr.  
 SOURCE: Journal of Nutrition (2005), 135(12), 2786-2792  
 CODEN: JONUAI; ISSN: 0022-3166  
 PUBLISHER: American Society for Nutrition  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Dietary phytoestrogens, such as isoflavones, are used as food additives to prevent menopause-related disorders. In addition to other factors, their bioavailability strongly depends on the activity of intestinal bacteria but the underlying interactions remain poorly understood. A randomized, double-blind, placebo-controlled study was undertaken with 39 postmenopausal women to characterize changes in the dominant microbial communities of the intestinal tract after 2 mo of isoflavone supplementation with and without pro- or prebiotic. The diversity and composition of the dominant microbiota were analyzed by temporal temperature-gradient gel electrophoresis (TTGE) and fluorescent in situ hybridization. Isoflavones alone stimulated dominant microorganisms of the Clostridium coccoides-Eubacterium rectale cluster, Lactobacillus-Enterococcus group, Faecalibacterium prausnitzii subgroup, and Bifidobacterium genus. The stimulation of the Clostridium coccoides-Eubacterium rectale cluster depended on the women's equol excretion and was transient, with the exception of a prolonged bifidogenic effect. Lasting changes in the diversity of the dominant species were also observed. The probiotic strain supplied could be detected by TTGE during its passage through the intestinal tract, and ingestion of fructooligosaccharides triggered a marked and specific bifidogenic effect. In conclusion, this is the first human study that shows changes in the diversity and composition of dominant bacterial communities in response to dietary supplementation with hormone-related compounds combined with functional foods.

IT 531-95-3, Equol  
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (isoflavones and functional foods alter the dominant intestinal microbiota in postmenopausal women)

RN 531-95-3 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2005:1243435 CAPLUS  
 DOCUMENT NUMBER: 144:48570  
 TITLE: Polymorphisms in the CYP19 gene may affect the positive correlations between serum and urine phytoestrogen metabolites and plasma androgen concentrations in men  
 AUTHOR(S): Low, Yen-Ling; Taylor, James I.; Grace, Philip B.; Dwyer, Mitch; Folkard, Elizabeth; Duddy, Deborah; Dunning, Alison M.; Scollen, Serena; Mulligan, Angela A.; Welch, Ailsa A.; Luben, Robert N.; Khaw, Kay-Tee; Day, Nick E.; Wareham, Nick J.; Bingham, Sheila A.  
 CORPORATE SOURCE: MRC Dunn Human Nutrition Unit, Cambridge, UK  
 SOURCE: Journal of Nutrition (2005), 135(11), 2680-2686  
 CODEN: JONUAI; ISSN: 0022-3166  
 PUBLISHER: American Society for Nutrition  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

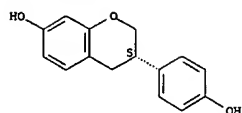
AB Phytoestrogens have been hypothesized to protect against prostate cancer via modulation of circulating androgen concns. We conducted a cross-sectional study of 267 men in the Norfolk arm of the European Prospective Investigation into Cancer and Nutrition (EPIC) cohort with 2 aims: first, to investigate the association between phytoestrogen exposure (measured from diet, urine, and serum) and plasma concns. of sex hormone-binding globulin (SHBG), androstenediol glucuronide, testosterone and Free Androgen Index (FAI); and second, whether the association may be modified by polymorphisms in CYP19 and SHBG genes. Dietary daidzein and genistein intakes were obtained from food diaries and computed using an inhouse food composition database. Urinary and serum concns. of 3 isoflavones (daidzein, genistein, glycitein), 2 daidzein metabolites (O-desmethyldaidzein and O-desmethyldaidzein glucuronide) and 2 lignan metabolites (enterodiol and enterolactone) were measured using mass spectrometry. There was no association between dietary, urinary, and serum phytoestrogens and plasma SHBG concns. Enterolactone was pos. associated with plasma androstenediol glucuronide concns. (urinary enterolactone:  $r = 0.127$ ,  $P = 0.043$ ; serum enterolactone:  $r = 0.172$ ,  $P = 0.006$ ) and FAI (urinary enterolactone:  $r = 0.115$ ,  $P = 0.067$ ; serum enterolactone:  $r = 0.158$ ,  $P = 0.011$ ). Both urinary and serum equol were associated with plasma testosterone (urinary equol:  $r = 0.332$ ,  $P = 0.013$ ; serum equol:  $r = 0.318$ ,  $P = 0.018$ ) and FAI (urinary equol:  $r = 0.297$ ,  $P = 0.027$ ; serum equol:  $r = 0.380$ ,  $P = 0.004$ ) among men with the TT genotype but not the CC or CT genotypes ( $r = -0.029$  to  $-0.134$ ,  $P = 0.091-0.717$ ) for the CYP19 3'-untranslated region (UTR) T-C polymorphism. Urinary and serum enterolactone showed similar genotype-dependent assocns. with testosterone but not with FAI. In this first study on phytoestrogen-gene assocns. in men, we conclude that enterolactone and equol are pos. associated with plasma androgen concns., and interactions with CYP19 gene may be involved.

IT 531-95-3, Equol  
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (polymorphisms in CYP19 gene may affect the pos. correlations between serum and urine phytoestrogen metabolites and plasma androgen concns. in men)

RN 531-95-3 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

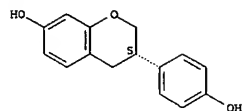




REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2005:1065679 CAPLUS  
 DOCUMENT NUMBER: 143:386117  
 TITLE: Soy processing affects metabolism and disposition of dietary isoflavones in ovariectomized Balb/c mice  
 AUTHOR(S): Allred, Clinton D.; Twaddle, Nathan C.; Allred, Kimberly F.; Goepfinger, Tracy S.; Churchwell, Mona I.; Ju, Young H.; Helferich, William G.; Doerge, Daniel R.  
 CORPORATE SOURCE: Department of Food Science and Human Nutrition, University of Illinois, Urbana-Champaign, IL, 61801, USA  
 SOURCE: Journal of Agricultural and Food Chemistry (2005), 53(22), 8542-8550  
 CODEN: JAFCAU; ISSN: 0021-8561  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Soybean foods and dietary supplements are widely consumed for potential health benefits. Previous studies show that isoflavone-supplemented diets with equal genistein equivalent differently stimulated mammary tumor growth in athymic mice based on the degree of soybean processing. Blood plasma pharmacokinetic anal. and metabolite identification were done in Balb/c mice fed the same diets, which contained genistin, mixed isoflavones, Novasoy, soy molasses, or soybean flour plus mixed isoflavones. Whereas the degree of soybean processing affected several parameters of isoflavone bioavailability and gut microflora metabolism of daidzein to equol, stimulation of tumor growth correlated only with plasma concns. of the aglycon genistein produced by the diets. This conclusion was consistent with the known estrogen agonist activity of genistein aglycon on mammary tumor growth. Blood plasma equol concns. inversely correlated with the degree of soybean processing. Although antagonism of genistein-stimulated tumor growth by equol could explain this result, the very low concns. of aglycon equol in plasma (12-fold lower relative to genistein) were inconsistent with any effect. The data underscore the importance of food processing, which can remove non-nutritive components from soybeans, on the pharmacokinetics and pharmacodynamics of isoflavones. Such changes in diet composition may affect circulating, and presumably target tissue, concns. of genistein aglycon, which can initiate estrogen receptor-mediated processes required for the stimulation of tumor growth in mouse models of postmenopausal breast cancer.  
 IT 531-95-3, Equol  
 RL: BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (soybean processing affects metabolism and disposition of dietary isoflavones in ovariectomized Balb/c mice)  
 RN 531-95-3 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



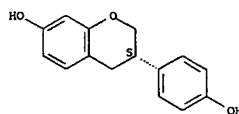
REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2005:1050498 CAPLUS  
 DOCUMENT NUMBER: 143:332596  
 TITLE: Processes for making coated phytochemicals and tocopherols and products formed therefrom  
 INVENTOR(S): Kuellmer, Volker; Shukla, Rishi  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 14 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
| US 2005214367          | A1   | 20050929 | US 2005-86946   | 20050322   |
| PRIORITY APPLN. INFO.: |      |          | US 2004-555197P | P 20040322 |

AB The present invention provides a process for producing a coated tocopherol succinate or coated phytoestrogen composition, comprising: (a) dispersing a binder composition in a solvent to form a binder solution; (b) passing tocopherol succinate or phytoestrogen composition in powder form through the binder solution, where the binder solution is in an atomized state, to produce wetted tocopherol succinate or wetted phytoestrogen composition; (c) passing the wetted tocopherol succinate or wetted phytoestrogen composition through a region of turbulent gas to form agglomerated tocopherol succinate or agglomerated phytoestrogen composition; and (d) evaporating the solvent from the agglomerated tocopherol succinate or agglomerated phytoestrogen composition thereby forming dried coated tocopherol succinate or dried coated phytoestrogen composition. The process can further include screening the dried coated tocopherol succinate or the dried coated phytoestrogen composition. Coated tocopherol succinate and phytoestrogens (e.g., isoflavones) are also provided.  
 IT 531-95-3, Equol  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (processes for making coated phytochems. and tocopherols and products formed therefrom)  
 RN 531-95-3 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

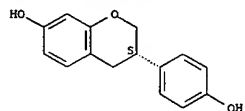
Absolute stereochemistry.



L12 ANSWER 16 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2005:1042017 CAPLUS  
DOCUMENT NUMBER: 143:325538  
TITLE: Isoflavone-containing compositions and methods for reducing or preventing obesity in animals  
INVENTOR(S): Pan, Yuanlong  
PATENT ASSIGNEE(S): Nestec S. A., Switz.  
SOURCE: PCT Int. Appl., 42 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| WO 2005089567  | A1   | 20050929 | WO 2005-EP2865  | 20050317 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SV, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  |      |          |                 |          |
| RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |      |          |                 |          |
| US 2005222050  | A1   | 20051006 | US 2005-82557   | 20050317 |
| PRIORITY APPLN. INFO.: US 2004-553871P P 20040317  |      |          |                 |          |
| AB Comps. useful for weight management in an animal are disclosed. The comps. comprise one or more isoflavones or isoflavone metabolites, and in some embodiments include conjugated linoleic acid, and/or L-carnitine. Also disclosed are methods useful for weight management in an animal utilizing comps. comprising one or more isoflavones, conjugated linoleic acid, and/or L-carnitine. Preferably, the comps. and methods employ a combination of one or more isoflavones, or a combination of one or more isoflavones in conjunction with conjugated linoleic acid, and L-carnitine. |      |          |                 |          |
| IT 531-95-3, Equol<br>RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)<br>(isoflavone-containing comps. and methods for reducing or preventing obesity in animals)  |      |          |                 |          |
| RN 531-95-3 CAPLUS   |      |          |                 |          |
| CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)   |      |          |                 |          |

Absolute stereochemistry.

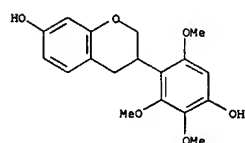


REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS

L12 ANSWER 16 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 17 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2005:976910 CAPLUS  
DOCUMENT NUMBER: 143:261856  
TITLE: Antibacterial agent and antibacterial composition for food, cosmetics, and drugs  
INVENTOR(S): Sakamoto, Kenji; Mukaiyama, Toshiyuki; Hori, Kazuyuki; Takahashi, Saori  
PATENT ASSIGNEE(S): Sakamoto Bio Co., Ltd., Japan; Akita Prefecture  
SOURCE: PCT Int. Appl., 42 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| WO 2005082151  | A1   | 20050909 | WO 2005-JP3123  | 20050225 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SV, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  |      |          |                 |          |
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| PRIORITY APPLN. INFO.: JP 2004-54936 A 20040227  |      |          |                 |          |
| AB It is intended to provide an antibacterial agents originating in a natural materials, which are safe in ordinary uses and have excellent antibacterial effects, and antibacterial comps. An antibacterial agent comprising an extract of Eysenhardtia adenostylis or an isoflavone compound, or an antibacterial agent containing, as the active ingredient, an extract of E. adenostylis or an isoflavone compound The above-described antibacterial agent is applicable to preps. of cosmetics, drugs, and foods. |      |          |                 |          |
| IT 52305-05-2<br>RL: BCP (Biochemical process); BIOL (Biological study); PROC (Process)<br>(isoflavone antibacterial agents from Eysenhardtia exts. for food, cosmetics, and drugs)  |      |          |                 |          |
| RN 52305-05-2 CAPLUS   |      |          |                 |          |
| CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxy-2,3,6-trimethoxyphenyl)- (9CI) (CA INDEX NAME)   |      |          |                 |          |



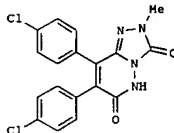
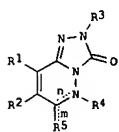
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 17 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

L12 ANSWER 18 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2005:161299 CAPLUS  
DOCUMENT NUMBER: 143:133380  
TITLE: Preparation of azabicyclic heterocycles as cannabinoid receptor modulators  
INVENTOR(S): Gu, Guixue; Ewing, William R.; Mikkilineni, Amarendra B.; Pendri, Annapurna; Ellsworth, Bruce A.; Sher, Philip M.; Gerritz, Samuel; Sun, Chongqing; Murugesan, Natesan; Wu, Ximao  
PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA  
SOURCE: PCT Int. Appl., 101 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
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| WO 2005063762   | A1   | 20050714 | WO 2004-US42878 | 20041217   |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |      |          |                 |            |
| RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |            |
| AU 2004309368   | A1   | 20050714 | AU 2004-309368  | 20041217   |
| CA 2550375  | AA   | 20050714 | CA 2004-2550375 | 20041217   |
| US 2005171110   | A1   | 20050804 | US 2004-16198   | 20041217   |
| EP 1697371  | A1   | 20060906 | EP 2004-815007  | 20041217   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR, IS, YU   |      |          |                 |            |
| EP 1699796  | A1   | 20060913 | EP 2004-814691  | 20041220   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR, IS, YU   |      |          |                 |            |
| PRIORITY APPLN. INFO.:  |      |          | US 2003-531451P | P 20031219 |
|   |      |          | US 2004-16198   | A 20041217 |
|   |      |          | WO 2004-US42878 | W 20041217 |
|   |      |          | WO 2004-US42542 | W 20041220 |

OTHER SOURCE(S): MARPAT 143:133380  
G1



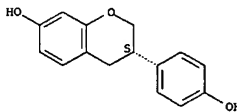
L12 ANSWER 19 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2005:572592 CAPLUS  
DOCUMENT NUMBER: 143:97378  
TITLE: Preparation of azabicyclic heterocycles as cannabinoid receptor modulators  
INVENTOR(S): Yu, Guixue; Ewing, William R.; Mikkilineni, Amarendra B.; Pendri, Annapurna; Sher, Philip M.; Gerritz, Samuel; Ellsworth, Bruce A.; Wu, Gang; Huang, Yanting; Sun, Chongqing; Murugesan, Natesan; Gu, Zhengxiang; Wang, Ying; Sitkoff, Doree; Johnson, Stephen R.; Wu, Ximao  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 196 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|---|------|----------|-----------------|------------|
| US 2005143381   | A1   | 20050630 | US 2004-16135   | 20041217   |
| AU 2004309365   | A1   | 20050714 | AU 2004-309365  | 20041217   |
| CA 2550435  | AA   | 20050714 | CA 2004-2550435 | 20041217   |
| WO 2005063761   | A1   | 20050714 | WO 2004-US42878 | 20041217   |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |      |          |                 |            |
| RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |            |
| US 2005192278   | A1   | 20050901 | US 2004-15876   | 20041217   |
| US 7037910  | B2   | 20060502 |                 |            |
| EP 1697370  | A1   | 20060906 | EP 2004-814952  | 20041217   |
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| WO 2005061509   | A1   | 20050707 | WO 2004-US42542 | 20041220   |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |      |          |                 |            |
| RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |            |
| EP 1699796  | A1   | 20060913 | EP 2004-814691  | 20041220   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR, IS, YU   |      |          |                 |            |
| PRIORITY APPLN. INFO.:  |      |          | US 2003-531451P | P 20031219 |
|   |      |          | US 2004-16135   | A 20041217 |
|   |      |          | WO 2004-US42878 | W 20041217 |

L12 ANSWER 18 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

AB The present application describes compds. I [R1, R2 = halo, CN, alkyl, etc.; R3 = H alkyl, alkenyl, cycloalkyl, etc.; R4 is absent when n is a double bond; R4 = H, alkyl, cycloalkyl, etc.; R5 = halo, (un)substituted OH, NH2, etc. when m is a single bond; R5 = O when m = a double bond; m, n = a single or double bond; when m is a single bond, n is a double bond; when m is a double bond, n is a single bond], pharmaceutical compns. comprising at least one compound I and optionally one or more addnl. therapeutic agents and methods of treatment using the compds. I both alone and in combination with one or more addnl. therapeutic agents. Over 40 compds. I were prepared. E.g., a multi-step synthesis of II, starting from dichloromandelic anhydride, was given. The exemplified compds. I showed the CB-1 receptor binding Ki values in the range of 0.01 nM to 10000 nM.  
IT 531-95-3  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(co-drug; preparation of azabicyclic heterocycles as cannabinoid receptor modulators)  
RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

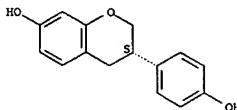


REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 19 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
OTHER SOURCE(S): MARPAT 143:97378  
G1

AB The present application describes compds. I [R1, R2 = halo, CN, alkyl, etc.; R3 = alkyl, alkenyl, cycloalkyl, etc.; R6 = H, alkyl, cycloalkyl, etc.; R7 is absent when double bond; or R7 = H, alkyl, cycloalkyl, etc.], pharmaceutical compns. comprising at least one compound I and optionally one or more addnl. therapeutic agents and methods of treatment using the compds. I both alone and in combination with one or more addnl. therapeutic agents. Over 400 compds. I were prepared. E.g., a multi-step synthesis of II, starting from dibromopyridazinone, was given. Representative compds. I showed the CB-1 receptor binding Ki values in the range of 0.01 nM to 10000 nM.  
IT 531-95-3, Equol  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(co-drug; preparation of azabicyclic heterocycles as cannabinoid receptor modulators)  
RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

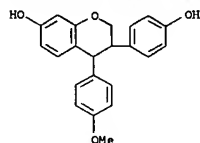
Absolute stereochemistry.



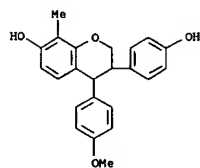
L12 ANSWER 20 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2005:471935 CAPLUS  
DOCUMENT NUMBER: 143:3376  
TITLE: Combinational radiotherapy and chemotherapy  
compositions and methods  
INVENTOR(S): Kelly, Graham Edmund; Brown, David  
PATENT ASSIGNEE(S): Novogen Research Pty Ltd., Australia  
SOURCE: PCT Int. Appl., 39 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 4  
PATENT INFORMATION:

| PATENT NO.             | KIND   | DATE     | APPLICATION NO. | DATE       |
|------------------------|--|----------|-----------------|------------|
| WO 2005049008          | A1   | 20050602 | WO 2004-AU1619  | 20041119   |
| W:                     | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW                 |          |                 |            |
| RW:                    | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |                 |            |
| AU 2004290465          | A1   | 20050602 | AU 2004-290465  | 20041119   |
| CA 2542351             | AA   | 20050602 | CA 2004-2542351 | 20041119   |
| EP 1686981             | A1   | 20060809 | EP 2004-797067  | 20041119   |
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| WO 2006032085          | A1   | 20060330 | WO 2005-AU1435  | 20050921   |
| W:                     | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |          |                 |            |
| RW:                    | AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM   |          |                 |            |
| WO 2006032086          | A1   | 20060330 | WO 2005-AU1436  | 20050921   |
| W:                     | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |          |                 |            |
| RW:                    | AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM   |          |                 |            |
| US 2006167037          | A1   | 20060727 | US 2006-547077  | 20060302   |
| PRIORITY APPLN. INFO.: |  |          | AU 2003-906386  | A 20031119 |

L12 ANSWER 20 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

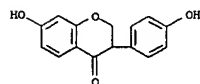


RN 852536-42-6 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-(4-methoxyphenyl)-8-methyl- (9CI) (CA INDEX NAME)



IT 17238-05-0 21554-71-2 94105-90-5  
328406-44-6 328406-47-9 442150-42-7  
442150-43-8 442150-61-0 852536-34-6  
852536-36-8 852536-37-9 852536-39-1  
852536-41-5 852536-44-8  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (isoflavonoids as tumor radiosensitizers)

RN 17238-05-0 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 21554-71-2 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 20 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

EP 2003-906386 A 20031119  
US 2004-611299P P 20040921  
US 2004-611300P P 20040921  
JP 2004-315009 A 20041029  
AU 2004-906363 A 20041105  
WO 2004-AU1619 W 20041119  
AU 2005-201855 A 20050503  
US 2005-676934P P 20050503

OTHER SOURCE(S): MARPAT 143:3376

AB This invention relates to combination therapies involving radiotherapy and chemotherapy. In particular the invention relates to the use of isoflavones or analogs thereof in combination with radiotherapy or chemotherapy in the treatment of cancer and related diseases and conditions. The invention also relates to compns. and agents useful for same and methods for their manufacture Dehydroequol, for example, radiosensitizes human breast, prostate, ovarian, pancreatic and cervical cancers.

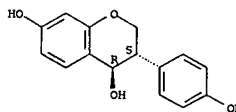
IT 168207-15-6 168207-16-7 852536-35-7

852536-42-6  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (isoflavonoids as tumor radiosensitizers)

RN 168207-15-6 CAPLUS

CN 2H-1-Benzopyran-4,7-diol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3R,4S)-rel- (9CI) (CA INDEX NAME)

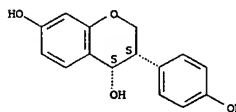
Relative stereochemistry.



RN 168207-16-7 CAPLUS

CN 2H-1-Benzopyran-4,7-diol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

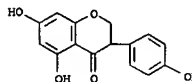
Relative stereochemistry.



RN 852536-35-7 CAPLUS

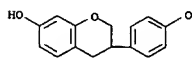
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 20 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



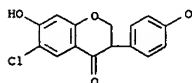
RN 94105-90-5 CAPLUS

CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



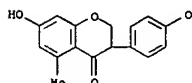
RN 328406-44-6 CAPLUS

CN 4H-1-Benzopyran-4-one, 6-chloro-2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



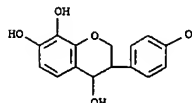
RN 328406-47-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-5-methyl- (9CI) (CA INDEX NAME)

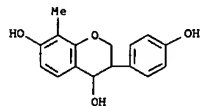


RN 442150-42-7 CAPLUS

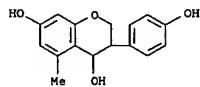
CN 2H-1-Benzopyran-4,7,8-triol, 3,4-dihydro-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



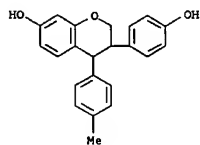
L12 ANSWER 20 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
RN 442150-43-8 CAPLUS  
CN 2H-1-Benzopyran-4,7-diol, 3,4-dihydro-3-(4-hydroxyphenyl)-8-methyl- (9CI) (CA INDEX NAME)



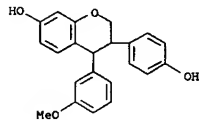
RN 442150-61-0 CAPLUS  
CN 2H-1-Benzopyran-4,7-diol, 3,4-dihydro-3-(4-hydroxyphenyl)-5-methyl- (9CI) (CA INDEX NAME)



RN 852536-34-6 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-(4-methylphenyl)- (9CI) (CA INDEX NAME)

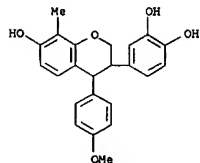


RN 852536-36-8 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-(3-methoxyphenyl)- (9CI) (CA INDEX NAME)



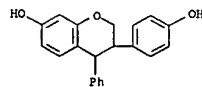
RN 852536-37-9 CAPLUS

L12 ANSWER 20 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

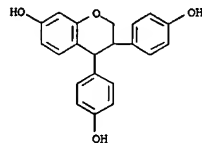


REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

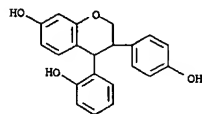
L12 ANSWER 20 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-4-phenyl- (9CI) (CA INDEX NAME)



RN 852536-39-1 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3,4-bis(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 852536-41-5 CAPLUS  
CN 1,2-Benzenediol, 4-[3,4-dihydro-4-(2-hydroxyphenyl)-3-(4-hydroxyphenyl)-1-benzopyran-3-yl]- (9CI) (CA INDEX NAME)



RN 852536-44-8 CAPLUS  
CN 1,2-Benzenediol, 4-[3,4-dihydro-7-hydroxy-4-(4-methoxyphenyl)-8-methyl-2H-1-benzopyran-3-yl]- (9CI) (CA INDEX NAME)

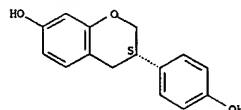
L12 ANSWER 21 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2005:238435 CAPLUS  
DOCUMENT NUMBER: 142:303643  
TITLE: Inhibition of photoaging of human skin by oral agents  
INVENTOR(S): Fisher, Gary J.; Kang, Sewon; Varani, James; Voorhees, John J.  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 36 pp., Cont.-in-part of U.S. Ser. No. 114,651.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE        |
|------------------------|------|----------|-----------------|-------------|
| US 2005058709          | A1   | 20050317 | US 2004-948002  | 20040923    |
| ZA 9804791             | A    | 19990106 | ZA 1998-4791    | 19980603    |
| US 6130254             | A    | 20001010 | US 1998-89914   | 19980603    |
| NZ 513045              | A    | 20021025 | NZ 1998-513045  | 19980603    |
| JP 2003034137          | A2   | 20030204 | JP 2002-71908   | 19980603    |
| US 6365630             | B1   | 20020402 | US 2000-615218  | 20000713    |
| US 2002106339          | A1   | 20020808 | US 2002-114651  | 20020402    |
| US 6942870             | B2   | 20050913 |                 |             |
| JP 2004217670          | A2   | 20040805 | JP 2004-87496   | 20040324    |
| PRIORITY APPLN. INFO.: |      |          | US 1997-48520P  | P 19970604  |
|                        |      |          | US 1997-57976P  | P 19970905  |
|                        |      |          | US 1998-89914   | A3 19980603 |
|                        |      |          | US 2000-615218  | A3 20000713 |
|                        |      |          | US 2002-114651  | A2 20020402 |
|                        |      |          | JP 1999-502833  | A3 19980603 |
|                        |      |          | NZ 1998-501634  | A1 19980603 |

AB Comps. and methods are provided for ameliorating various effects of UVA and UVB radiation, especially from the sun. The comps. include an ingredient that prevents photoaging from MED and subMED radiation, e.g., an MMP (matrix metalloproteinase) inhibitor, especially formulated for oral administration, and more especially formulated for controlled-release so as to provide the MMP inhibitor when MMP induction (including upstream signalling mols. like c-JUN, and/or MMPs like stromelysin) is most prevalent. N-acetylcysteine had significant protection against collagenase activity in humans.

IT 531-95-3, Equol  
RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(inhibition of photoaging of human skin by oral agents)  
RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L12 ANSWER 22 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2005:14113 CAPLUS  
 DOCUMENT NUMBER: 142:55197  
 TITLE: Composition containing lactic acid bacterium producing equol  
 INVENTOR(S): Uchiyama, Shigeto; Ueno, Tomomi; Suzuki, Toshimi  
 PATENT ASSIGNEE(S): Otsuka Pharmaceutical Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 47 pp.  
 CODEN: P1XXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

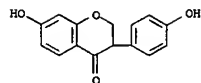
| PATENT NO.             | KIND   | DATE     | APPLICATION NO.  | DATE       |
|------------------------|--|----------|------------------|------------|
| WO 2005000042          | A1   | 20050106 | WO 2004-JP9484   | 20040629   |
| W:                     | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, GU, HD, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LA, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |          |                  |            |
| RW:                    | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, XG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |                  |            |
| AU 2004251563          | A1   | 20050106 | AU 2004-251563   | 20040629   |
| CA 2531173             | AA   | 20050106 | CA 2004-2531173  | 20040629   |
| EP 1649760             | A1   | 20060426 | EP 2004-746953   | 20040629   |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK   |          |                  |            |
| BR 2004012180          | A  | 20060822 | BR 2004-12180    | 20040629   |
| CN 1826059             | A  | 20060830 | CN 2004-80020952 | 20040629   |
| US 2006148045          | A1   | 20060706 | US 2005-562687   | 20051228   |
| PRIORITY APPLN. INFO.: |  |          | JP 2003-187811   | A 20030630 |
|                        |  |          | WO 2004-JP9484   | W 20040629 |

AB It is intended to provide a composition containing a lactic acid-bacterium producing equol characterized by a lactic acid bacterium belonging to the genus *Lactococcus* that is capable of metabolizing at least one daidzein compound selected from the group consisting of daidzein glycosides, daidzein and dihydrodaidzein and thus producing equol; and a process for producing equol characterized by comprising treating at least one member selected from the group consisting of daidzein compds. and daidzein-containing materials with the lactic acid bacterium as described above. The above-described lactic acid bacterium includes *Lactococcus garvieae*. This composition is effective in preventing and relieving indefinite complaints including menopausal disorders in middle-aged and older women.

IT 17238-05-0, Dihydrodaidzein  
 RL: BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (in lactic acid bacterium producing equol for health food)

RN 17238-05-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

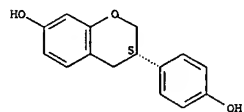


IT 531-95-3P, Equol  
 RL: BPN (Biosynthetic preparation); FFD (Food or feed use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (lactic acid bacterium producing equol for health food)

RN 531-95-3 CAPLUS

CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2004:870087 CAPLUS  
 DOCUMENT NUMBER: 142:33812  
 TITLE: Bioassay-Directed Identification of Estrogen Residues in Urine by Liquid Chromatography Electrospray Quadrupole Time-of-Flight Mass Spectrometry  
 AUTHOR(S): Nielsen, Michel W. F.; van Bennekom, Eric O.; Heskamp, Henri H.; van Rhijn, J. A.; Bovee, Toine F. H.; Hoogenboom, L. A. P.  
 CORPORATE SOURCE: RIKILT Institute of Food Safety, Wageningen, 6700 AE, Neth.  
 SOURCE: Analytical Chemistry (2004), 76(22), 6600-6608  
 CODEN: ANCHAM; ISSN: 0003-2700  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

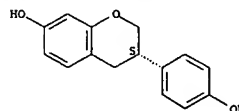
AB A new approach to the search for residues of known and unknown estrogens in calf urine is presented. Following enzymic deconjugation and solid-phase extraction, a minor part of the samples is screened for estrogen activity using a recently developed rapid reporter gene bioassay. The remainder of the bioactive exts. is analyzed by gradient liquid chromatog. (LC) with, in parallel, bioactivity and mass spectrometric detection via effluent splitting toward a 96-well fraction collector and an electrospray quadrupole time-of-flight mass spectrometer (QTOFMS). The LC fractions in the 96-well plate are used for the detection of estrogen activity using the bioassay. The bioassay obtained features a 20-3 time resolution, and the suspect well nos. can be easily correlated with the LC/QTOFMS retention time. The mass spectral data from the thus assigned relevant parts of the chromatograms are background subtracted, followed by accurate mass measurement, element composition calcn., and identification. The method allows estrogen activity detection and identification of unknown estrogens in urine at the 1-2 ng/L level, in compliance with current residue anal. performance for hormone abuse in cattle. The applicability of this LC/bioassay/QTOFMS approach for the identification of estrogens in real-life samples is demonstrated by the anal. of several calf urine samples, and preliminary data from a pig feed sample.

IT 531-95-3, Equol  
 RL: ANT (Analyte); ANST (Analytical study)  
 (bioassay-directed identification of estrogen residues in urine by liquid chromatog. electrospray quadrupole time-of-flight mass spectrometry)

RN 531-95-3 CAPLUS

CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



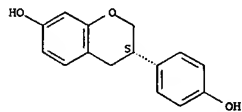
REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 24 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2004:739954 CAPLUS  
DOCUMENT NUMBER: 141:254535  
TITLE: Composition and method for treating cancer  
INVENTOR(S): Mo, Huanbiao; Elson, Charles E.; Peffley, Dennis M.;  
Hentosh, Patricia M.  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 12 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| US 2004176311 | A1   | 20040909 | US 2003-383811  | 20030307 |
| US 7074825    | B2   | 20060711 |                 |          |

PRIORITY APPLN. INFO.: US 2002-362358P P 20020307  
AB A composition and an associated method of treating cancer cells by  
impeding cancer cell growth with the composition are disclosed. The  
composition includes at least a first and a second HMG-CoA reductase  
inhibitor, wherein the total amount of the first and second HMG-CoA  
reductase inhibitors is effective in synergistically impeding cancer cell  
growth and wherein the cancer cell growth synergistic impedance from the  
total amount of the first and second HMG-CoA reductase inhibitors is greater  
than a theor. additive effect from the combined first and second HMG-CoA  
reductase inhibitors. The present composition does not  
simultaneously contain both a cocotrienol and an ionone when the  
composition contains only a first and a second HMG-CoA reductase  
inhibitor. The method includes treating cancer cells with the claimed  
composition to impede cancer cell growth.  
IT 531-95-3, Equol  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(composition of HMG-CoA reductase inhibitors and method for  
treating cancer)  
RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA  
INDEX NAME)

Absolute stereochemistry.



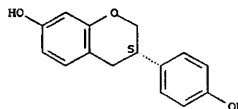
REFERENCE COUNT: 83 THERE ARE 83 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 25 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 25 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2004:649266 CAPLUS  
DOCUMENT NUMBER: 142:22713  
TITLE: Growth performance, carcass characteristics and  
bioavailability of isoflavones in pigs fed soy bean  
based diets  
AUTHOR(S): Kuhn, Gerda; Hennig, U.; Kalbe, Claudia; Rehfeldt,  
Charlotte; Ren, Mq; Moors, S.; Degen, Gisela  
CORPORATE SOURCE: Research Institute for the Biology of Farm Animals  
(FBN), Dummerstorf, Germany  
SOURCE: Archives of Animal Nutrition (2004), 58(4), 265-276  
CODEN: AANUET; ISSN: 0003-942X  
Taylor & Francis Ltd.  
PUBLISHER:  
DOCUMENT TYPE: Journal  
LANGUAGE: English

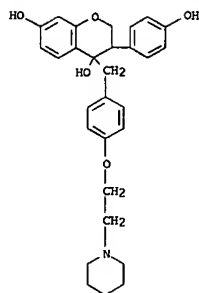
AB A growth trial with 38 weaners (castrated male swine) was designed to  
compare the growth performance and carcass quality of swine fed diets  
containing either soy bean meal or soy protein concentrate in a  
pair-feeding design.  
Soy bean meal (SBM) and soy protein concentrate (SPC) differed in isoflavone  
(daidzein plus genistein) content (782 µg/g in SBM and 125 µg/g in  
SPC, resp.). During the experiment, all swine were fed 4-phases-diets  
characterized by decreasing protein concns. with increasing age (weaner I,  
weaner II, grower, finisher diets). Rations of control and exptl. groups  
were isoenergetic, isonitrogenous, and isoaminoagen. The weaning swine  
with an initial live weight of 8.4 ± 1.1 kg were allotted to flat deck  
boxes. During the growing/finishing period (days 70 - 170 of age), the  
swine were housed in single boxes. Both, the weaning and the  
growing/finishing performances (daily body weight gain, feed intake, feed  
conversion ratio) were similar in both groups. No differences were found  
between the groups in carcass composition (percentages of cuts,  
tissues, and protein/fat), and meat quality of swine. Moreover, the  
IGF-1R mRNA expression in longissimus muscle was not influenced by the  
kind of soy product. However, circulating levels of isoflavones were  
clearly different between swine fed SBM (genistein 239 ± 44; daidzein  
162 ± 42; equol 12 ± 4 ng/mL plasma) and animals fed SPC (genistein  
22 ± 9 and daidzein 8 ± 3, and equol 10 ± 3 ng/mL plasma). The  
results confirm the expected differences in the bioavailability of soy  
isoflavones, yet, there were no significant differences in performance of  
swine fed either soy bean meal or soy protein concentrate  
IT 531-95-3, Equol  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(growth performance, carcass characteristics and bioavailability of  
isoflavones in swine fed soy bean based diets)  
RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA  
INDEX NAME)

Absolute stereochemistry.



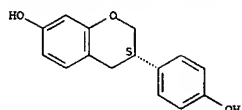
REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS

L12 ANSWER 26 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2004:506090 CAPLUS  
DOCUMENT NUMBER: 141:184593  
TITLE: Synthesis, pharmacological evaluation, and  
structure-activity relationships of benzopyran  
derivatives with potent SERM activity  
AUTHOR(S): Amari, Gabriele; Armani, Elisabetta; Ghirardi, Silvia;  
Delcanale, Maurizio; Clivelli, Maurizio; Caruso, Paola  
Lorenza; Galbiati, Elisabetta; Lupreri, Milcor Rivas,  
Silvia; Lodola, Alessio; Mor, Marco  
CORPORATE SOURCE: Chiesi Farmaceutici S.p.A., Department of Medicinal  
Chemistry, Parma, I-43100, Italy  
SOURCE: Bioorganic & Medicinal Chemistry (2004), 12(14),  
3763-3782  
CODEN: BMECEP; ISSN: 0968-0896  
Elsevier Ltd.  
PUBLISHER:  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 141:184593  
AB The synthesis, binding affinity for estrogen receptor subtypes (ERα  
and ERβ) and pharmacol. activity on rat uterus of a new class of  
potent ligands, characterized by a 3-phenylbenzopyran scaffold with a  
basic side chain in position 4, are reported. Some of these compds.,  
endowed with very high receptor affinity, showed potent inhibition of  
agonist-stimulated uterine growth, with no or limited proliferative  
effect. Binding affinity mostly depended on the nature and position of  
substituents at the 3-Ph ring, while the uterine activity seems to be  
affected by basic chain length. Compound CHF4227 showed excellent binding  
affinity and antagonist activity on the uterus. The docking of benzopyran  
derivs. explained the structure-affinity relationships observed for 3-Ph  
substitution: a small, hydrophobic 4'-substituent could interact with a  
small accessory binding cavity, while di-substitution at 4' and 3' led to  
some ERα selectivity. This selectivity can be ascribed to  
differences in amino acid composition and side chain conformation in  
the region accommodating the 3-Ph ring at human ERα and ERβ  
ligand-binding domain.  
IT 738601-52-OP  
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP  
(Preparation); RACT (Reactant or reagent)  
(synthesis, pharmacol. evaluation, and structure-activity relationships  
of benzopyran derivs. with potent SERM activity)  
RN 738601-52-0 CAPLUS  
CN 2H-1-Benzopyran-4,7-diol, 3,4-dihydro-3-(4-hydroxyphenyl)-4'-[[4-[2-(1-  
piperidinyl)ethoxy]phenyl]methyl]- (9CI) (CA INDEX NAME)



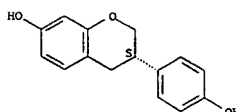
REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2004:394024 CAPLUS  
DOCUMENT NUMBER: 141:105814  
TITLE: Influence of soya-based infant formula consumption on isoflavone and gut microflora metabolite concentrations in urine and on faecal microflora composition and metabolic activity in infants and children  
AUTHOR(S): Hoey, Leane; Rowland, Ian R.; Lloyd, Antony S.; Clarke, Don B.; Wiseman, Helen  
CORPORATE SOURCE: Northern Ireland Centre for Food and Health, University of Ulster, Coleraine, BT52 1SA, UK  
SOURCE: British Journal of Nutrition (2004), 91(4), 607-616  
CODEN: BJNUAV; ISSN: 0007-1145  
PUBLISHER: CAB International  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The urinary excretion of soya isoflavones and gut microflora metabolites was investigated in infants and children who had been fed soya-based infant formulas in early infancy. These infants and children were compared with cows'-milk formula-fed controls, to determine at what age gut microflora metabolism of daidzein to equol and/or O-desmethylanagolensin (O-DMA) was established, and whether exposure to isoflavones in early infancy influences their metabolism at a later stage of development. Sixty infants and children (aged 4 mo-7 yr) participated in the study; thirty in each of the soya and control groups. There were four age groups. These were: 4-6 mo (seven in the soya group and seven in the control group); 7-12 mo (seven in the soya group and nine in the control group); 1-3 yr (six in the soya group and eight in the control group); 3-7 yr (ten in the soya group and six in the control group). Urine samples were collected to measure isoflavonoids by MS, and faecal samples were collected to measure gut-health-related bacterial composition, by fluorescent in situ hybridization with oligonucleotide probes, and metabolic activity. A soya challenge (typically a soya yogurt alternative product containing 4.8 g soya protein and on average 22 mg total isoflavones) was given to control-group infants (>6 mo) and children, and also to soya-group children that were no longer consuming soya, to determine their ability to produce equol and/or O-DMA. Urinary genistein, daidzein and glycitein were detected in all infants (4-6 mo) fed soya-based infant formula; O-DMA was detected in 75 % of infants but equol was detected in only 25 %. In the controls (4-6 mo), urinary isoflavonoids were very low or not detected. In the older age groups (7 mo-7 yr), O-DMA was found in the urine samples of 75 % of the soya group and 50 % of the controls, after the soya challenge. Equol excretion was detected in 19 % of the soya-group infants and children, and in only 5 % of the controls. However, in the oldest (3-7 yr) children, the proportion excreting O-DMA and equol was similar in both groups. Faecal bacterial nos. for Bifido-bacteria (P<0.001), Bacteroides and Clostridia (P<0.05) were significantly lower for the soya group compared with the control group. There appears to be no lasting effect of early-life isoflavone exposure on isoflavone metabolism  
IT 531-95-3, Equol  
RL: BSU (Biological study, unclassified); BIOL (Biological study) (Influence of soya-based infant formula consumption on isoflavone and gut microflora metabolite concns. in urine and on faecal microflora composition and metabolic activity in infants and children)  
RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)  
Absolute stereochemistry.



REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2004:394019 CAPLUS  
DOCUMENT NUMBER: 141:123044  
TITLE: Urinary isoflavone kinetics: The effect of age, gender, food matrix and chemical composition  
AUTHOR(S): Faughnan, Marian S.; Hawdon, Ann; Ah-Singh, Eric; Brown, Jonathan; Millward, D. J.; Cassidy, Aedin  
CORPORATE SOURCE: School of Biological Sciences, University of Surrey, Guildford, GU2 5XH, UK  
SOURCE: British Journal of Nutrition (2004), 91(4), 567-574  
CODEN: BJNUAV; ISSN: 0007-1145  
PUBLISHER: CAB International  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Urinary isoflavone excretion is used to monitor compliance and examine biol. effects. The present study determined if there were alterations in urinary isoflavone excretion following the ingestion of different soya foods and if age and gender potentially modified profiles. Twenty premenopausal women, 17 post-menopausal women and twenty men received a defined single oral bolus dose (0-44 mg isoflavones/kg body weight) of soya milk, textured vegetable protein (TVP) or tempeh on 3 sep. occasions. Baseline and four consecutive complete 24 h pooled urines were collected during each period. Urinary genistein recovery was influenced by gender and food matrix. For women the urinary genistein recovery was higher following soya-milk consumption compared with TVP (P<0.05). Tempeh consumption also resulted in an increased urinary genistein recovery relative to soya milk in premenopausal women (P<0.052). No differences in urinary genistein recoveries between soya foods were observed in the men. Although urinary daidzein excretion was similar across the foods studied and was not affected by age or gender, conversion to its intestinal metabolite, equol, resulted in potential matrix and chemical composition effects; urinary equol excretion was higher (P<0.01) following tempeh ingestion among equol producers. Together these data suggest that the fractional absorption of genistein is potentially different in men and women and is influenced by the food matrix and chemical composition. Furthermore, the data suggest that the metabolism of daidzein may be altered by the chemical composition of the isoflavones ingested. Further studies are required to examine the effect of higher intake and define the relative influence of these factors in elderly population groups.  
IT 531-95-3, Equol  
RL: BSU (Biological study, unclassified); PKT (Pharmacokinetics); BIOL (Biological study) (effect of age, gender, food matrix and chemical composition on urinary isoflavone kinetics)  
RN 531-95-3 CAPLUS  
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)  
Absolute stereochemistry.

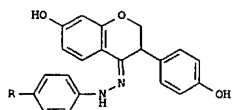




L12 ANSWER 28 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 29 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2004:390237 CAPLUS  
DOCUMENT NUMBER: 140:406680  
TITLE: Preparation of aminated isoflavonoid derivatives for  
use in pharmaceutical compositions  
INVENTOR(S): Kelly, Graham Edmund; Heaton, Andrew; Faragalla, Jane;  
Brenner, John  
PATENT ASSIGNEE(S): Novogen Research Pty. Ltd., Australia  
SOURCE: PCT Int. Appl., 60 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

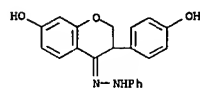
| PATENT NO.             | KIND   | DATE              | APPLICATION NO.  | DATE       |
|------------------------|--|-------------------|------------------|------------|
| WO 2004039793          | A1   | 20040513          | WO 2003-AU1446   | 20031103   |
| W:                     | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |                   |                  |            |
| RW:                    | BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |                   |                  |            |
| CA 2504653             | AA   | 20040513          | CA 2003-2504653  | 20031103   |
| AU 2003277969          | A1   | 20040525          | AU 2003-277969   | 20031103   |
| EP 1556368             | A1   | 20050727          | EP 2003-769053   | 20031103   |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK   |                   |                  |            |
| CN 1708490             | A  | 20051214          | CN 2003-80102565 | 20031103   |
| JP 2006513997          | T2   | 20060427          | JP 2004-547289   | 20031103   |
| NO 2005002524          | A  | 20050526          | NO 2005-2524     | 20050526   |
| US 2006100238          | A1   | 20060511          | US 2005-532074   | 20051128   |
| PRIORITY APPLN. INFO.: |  |                   | AU 2002-952453   | A 20021101 |
| OTHER SOURCE(S):       |  | MARPAT 140:406680 | WO 2003-AU1446   | W 20031103 |
| GI                     |  |                   |                  |            |



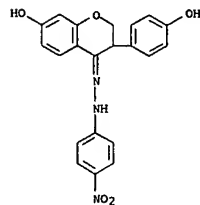
AB Aminated isoflavonoids, such as I [R = H, NO<sub>2</sub>, Me], were synthesized by aminating the 4-keto group of an isoflavanone. Claimed uses for these aminated isoflavanoids include treatment, prevention or amelioration of diseases associated with aberrant cell survival, aberrant cell proliferation,

L12 ANSWER 29 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
abnormal cellular migration, abnormal angiogenesis, abnormal estrogen/androgen balance, dysfunctional or abnormal steroidogenesis, degeneration including degenerative changes within blood vessel walls, inflammation and immunol. imbalance and for inducing apoptosis in cells expressing abnormal pro-survival phenotype, inhibiting migration of cells having an abnormal cellular migration phenotype, and inhibiting angiogenesis in tissue expressing aberrant angiogenic phenotype. Thus, isoflavonoid I (R = H) was prepd. by reacting dihydroidaidzein with phenylhydrazine hydrochloride using NaOAc in MeOH. The prepd. isoflavonoid derivs. were assayed for cytotoxicity against cancer cell lines, such as prostate LNCaP and DU-145 and lung carcinoma NCI-H460, for androgen inhibition, for inhibition of thromboxane synthase and COX.  
IT 688358-33-OP 688358-34-1P 688358-35-2P  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of aminated isoflavonoid derivs. for use in pharmaceutical compns.)

RN 688358-33-0 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-, phenylhydrazone (9CI) (CA INDEX NAME)

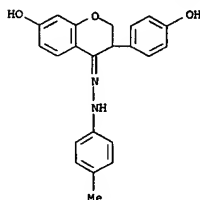


RN 688358-34-1 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-, (4-nitrophenyl)hydrazone (9CI) (CA INDEX NAME)



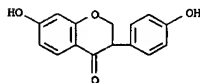
RN 688358-35-2 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-, (4-methylphenyl)hydrazone (9CI) (CA INDEX NAME)

L12 ANSWER 29 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



IT 17238-05-0, Dihydroidaidzein  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of aminated isoflavonoid derivs. for use in pharmaceutical compns.)

RN 17238-05-0 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

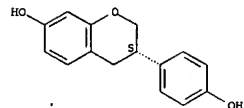


L12 ANSWER 61 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 62 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1998:344623 CAPLUS  
DOCUMENT NUMBER: 129:45319  
TITLE: Composition and treatment for persistent  
reproductive transition symptoms  
INVENTOR(S): Wurtman, Judith J.; Lepene, Lewis D.  
PATENT ASSIGNEE(S): Internutria, Inc., USA  
SOURCE: PCT Int. Appl., 31 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.                | KIND   | DATE     | APPLICATION NO. | DATE       |
|---------------------------|--|----------|-----------------|------------|
| WO 9821946                | A1   | 19980528 | WO 1997-US20957 | 19971118   |
| W:                        | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW   |          |                 |            |
| RW:                       | GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG   |          |                 |            |
| AU 9852606                | A1   | 19980610 | AU 1998-52606   | 19971118   |
| PRIORITY APPLN. INFO.:    |  |          | US 1996-751590  | A 19961118 |
|                           |  |          | WO 1997-US20957 | W 19971118 |
| AB                        | Somatic, emotional, metabolic, and cognitive symptoms of premenopausal and/or menopausal disorders are relieved by oral or topical administration of 21 phytoestrogen; a mixture of remedial carbohydrates including 21 simple carbohydrate, 21 complex carbohydrate, and starch; and choline or a source of choline. If the choline source is phosphatidylcholine, then the composition is substantially free of added 3-sitosterol. Subjects receiving this therapy experience inhibition of breakthrough bleeding, elimination of the need for concurrent hormone replacement therapy, stimulation of osteoblast activity, and inhibition of hardening of the vasculature, along with an improvement in mood, decreased water retention, decreased irritability, and increased ability to concentrate or remain mentally alert. Thus, a powder for reconstitution with water into a beverage contained soy proteins 60, isoflavones 45 (comprising genistein 27 and daidzein 18), carbohydrate mix 50 (comprising dextrose 18.5, maltodextrin 30, and starch 1.5), and choline 1 g. |          |                 |            |
| IT                        | 531-95-3, Equol  |          |                 |            |
| RL:                       | BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)   |          |                 |            |
|                           | (composition and treatment for persistent reproductive transition symptoms)  |          |                 |            |
| RN                        | 531-95-3 CAPLUS  |          |                 |            |
| CN                        | 2H-1-Benzopyren-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)  |          |                 |            |
| Absolute stereochemistry. |  |          |                 |            |

L12 ANSWER 62 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

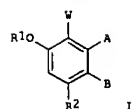


REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

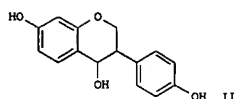
L12 ANSWER 63 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1998:161127 CAPLUS  
DOCUMENT NUMBER: 128:217227  
TITLE: Therapeutic methods and compositions  
involving isoflavones  
INVENTOR(S): Kelly, Graham Edmund; Joannou, George Eustace  
PATENT ASSIGNEE(S): Novogen Research Pty. Ltd., Australia  
SOURCE: PCT Int. Appl., 50 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND   | DATE     | APPLICATION NO.  | DATE        |
|------------------------|--|----------|------------------|-------------|
| WO 9808503             | A1   | 19980305 | WO 1997-AU563    | 19970829    |
| W:                     | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW |          |                  |             |
| RW:                    | GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG   |          |                  |             |
| CA 2265049             | A1   | 19980305 | CA 1997-2265049  | 19970829    |
| AU 9740034             | A1   | 19980319 | AU 1997-40034    | 19970829    |
| AU 731951              | B2   | 20010405 |                  |             |
| GB 2331015             | A1   | 19990512 | GB 1999-2141     | 19970829    |
| GB 2331015             | B2   | 20010509 |                  |             |
| CN 1233173             | A  | 19991027 | CN 1997-198690   | 19970829    |
| EP 954302              | A1   | 19991110 | EP 1997-937345   | 19970829    |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO   |          |                  |             |
| BR 9713180             | A  | 20000118 | BR 1997-13180    | 19970829    |
| JP 2001500480          | T2   | 20010116 | JP 1998-511105   | 19970829    |
| NZ 506063              | A  | 20041224 | NZ 1997-506063   | 19970829    |
| CN 1559401             | A  | 20050105 | CN 2004-10048546 | 19970829    |
| CZ 295625              | B6   | 20050914 | CZ 1999-699      | 19970829    |
| NO 9900965             | A  | 19990226 | NO 1999-965      | 19990226    |
| US 6649648             | B1   | 20011118 | US 1999-254026   | 19990805    |
| HK 1019553             | A1   | 20011214 | HK 1999-104669   | 19991021    |
| AU 776894              | B2   | 20040923 | AU 2001-19723    | 20010213    |
| US 2002198248          | A1   | 20021226 | US 2002-176762   | 20020621    |
| US 2003018060          | A1   | 20030123 | US 2002-177387   | 20020621    |
| US 2005059616          | A1   | 20050317 | US 2003-636902   | 20030806    |
| AU 2004224982          | A1   | 20041202 | AU 2004-224982   | 20041103    |
| US 2005131047          | A1   | 20050616 | US 2004-24512    | 20041228    |
| PRIORITY APPLN. INFO.: |  |          | AU 1996-2039     | A 19960830  |
|                        |  |          | AU 1997-40034    | A3 19970829 |
|                        |  |          | CN 1997-198690   | A3 19970829 |
|                        |  |          | WO 1997-AU563    | W 19970829  |
|                        |  |          | US 1999-254026   | A1 19990805 |
|                        |  |          | AU 2001-19723    | A 20010213  |
|                        |  |          | US 2002-176762   | A1 20020621 |

OTHER SOURCE(S): MARPAT 128:217227  
G1



I

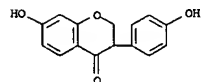


II

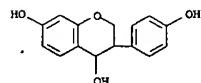
AB Comps. of formula I [R1 = H, acyl, amino acid; R2 = H, OH, acyloxy, amino acyloxy; A = H, OH; B = acyl; etc. AB = substituted six-membered ring; W = H; WAB = substituted pyrrolonaphthalene ring; WA = substituted pyrrole] are prepared. These compds. are useful in the treatment or prevention of menopausal syndrome, cancer, inflammatory diseases, diseases associated with oxidant stress, acne, alopecia, etc. Thus, tetrahydrodaidzein (II) is prepared by reduction of daidzein. II had a lag time of >140 min in LDL antioxidant test.

IT 17238-05-OP 175089-66-4P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (preparation of isoflavones as therapeutic agents)

RN 17238-05-0 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 175089-66-4 CAPLUS  
 CN 2H-1-Benzopyran-4,7-diol, 3,4-dihydro-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



IT 21554-71-2P 94105-90-5P, (4)-Equol  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of isoflavones as therapeutic agents)

RN 21554-71-2 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

ACCESSION NUMBER: 1997:498330 CAPLUS  
 DOCUMENT NUMBER: 127:160868  
 TITLE: Exposure of infants to phytoestrogens from soy-based infant formula  
 AUTHOR(S): Setchell, Kenneth D. R.; Zimmer-Nechemias, Linda; Cai, Jinnan; Heubl, James E.  
 CORPORATE SOURCE: Clinical Mass Spectrometry Center, Children's Hospital Medical Center, Cincinnati, OH, 45229, USA  
 SOURCE: Lancet (1997) 350(9070), 23-27  
 CODEN: LANCAD; ISSN: 0140-6736  
 PUBLISHER: Lancet  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

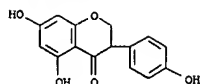
AB The isoflavones genistein, daidzein, and their glycosides, found in high concns. in soybeans and soy-protein foods, may have beneficial effects in the prevention or treatment of many hormone-dependent diseases. Because these bioactive phytoestrogens possess a wide range of hormonal and nonhormonal activities, it has been suggested that adverse effects may occur in infants fed soy-based formulas. To evaluate the extent of infant exposure to phytoestrogens from soy formula, the isoflavone compn. of 25 randomly selected samples from five major brands of com. available soy-based infant formulas were analyzed, and the plasma concns. of genistein and daidzein, and the intestinally derived metabolite, equol, were compared in 4-mo-old infants fed exclusively soy-based infant formula (n=7), cow-milk formula (n=7), or human breast-milk (n=7). All of the soy formulas contained mainly glycosides of genistein and daidzein, and the total isoflavone content was similar among the five formulas analyzed and was related to the proportion of soy isolate used in their manufacture. From the concns. of isoflavones in these formulas (means 32-47 µg/mL), the typical daily volume of milk consumed, and average body-weight, a 4-mo-old

infant fed soy formula would be exposed to 28-47 per day, or about 4.5-8.0 mg/kg body-weight per day, of total isoflavones. Mean (SD) plasma concns. of genistein and daidzein in the seven infants fed soy-based formulas were 684 (443) ng/mL and 295 (60) ng/mL, resp., which was significantly greater (p<0.05) than in the infants fed either cow-milk formulas (3.2 [0.7] and 2.1 [0.3] ng/mL), or human breast-milk (2.8 [0.7] and 1.4 [0.1] ng/mL), and an order of magnitude higher per bodyweight than typical plasma concns. of adults consuming soy foods. The daily exposure of infants to isoflavones in soy infant-formulas is 6-11 fold higher on a bodyweight basis than the dose that has hormonal effects in adults consuming soy foods. Circulating concns. of isoflavones in the seven infants fed soy-based formula were 13,000-22,000 times higher than plasma estradiol concns. in early life, and may be sufficient to exert biol. effects, whereas the contribution of isoflavones from breast-milk and cow-milk is negligible.

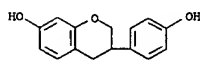
IT 531-95-3, Equol  
 RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)  
 (exposure of infants to phytoestrogens from soy-based infant formula)

RN 531-95-3 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

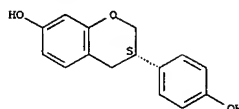
Absolute stereochemistry.



RN 94105-90-5 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT



L12 ANSWER 65 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1991:631980 CAPLUS  
 DOCUMENT NUMBER: 115:231980  
 TITLE: Allergy inhibitors containing flavonoids from mulberry, licorice, or Epimedium  
 INVENTOR(S): Sato, Shunji; Yanagisawa, Toshihiko; Mihashi, Hiroshi; Nomura, Taro  
 PATENT ASSIGNEE(S): Tsumura and Co., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JXXXXF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

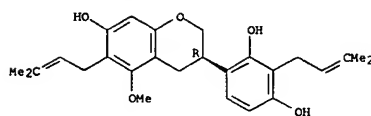
| PATENT NO.                                     | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| JP 03068515                                    | A2   | 19910325 | JP 1989-203969  | 19890808 |
| PRIORITY APPLN. INFO.: JP 1989-203969 19890808 |      |          |                 |          |
| OTHER SOURCE(S): MARPAT 115:231980             |      |          |                 |          |
| G1   |      |          |                 |          |

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Allergy inhibitors containing chromones I [R1 = H, C6H4OH, C6H3(OH)2; R2 = CH2CH:CHMe2, C6H4OMe, C6H3(OH)Me, rhamunopyranosyloxy]; R3 = H, CH2CH:CHMe2; R4 = H, CH2CH:CHMe2, Q; R5 = H, CH2CH:CHMe2], morusin, oxydihydromorusin, flavanones II [R6 = Q1, Q2, Q3; R7 = H, CH2CH:CHMe2], sanggenone C, licoricidin, mulberrofuran A (III), or mulberrofuran G are claimed. The claimed compds. are also usefu as inflammation inhibitors and thrombosis inhibitors. Root bark of mulberry was degreased with hexane, successively extracted with benzene and AcOEt, then evaporated. The benzene extract was dissolved in MeOH and the MeOH-sol extract was subjected to silicagel column chromatog. eluting with benzene-MeOH. The benzene eluate was subjected to thin-layer chromatog. to give III. III inhibited 5-lipoxygenase, cyclooxygenase, and hyaluronidase activities. Administration of the claimed compds. at 1.0 g/kg p.o. to mice caused no death. A compn. containing III 10, corn starch 44, crystalline cellulose 40, CM-cellulose Ca 5, light SiO2, and Mg stearate 0.5 g was made into tablets (200 mg/tablet).  
 IT 30508-27-1P, Licoricidin  
 RL: PREP (Preparation)  
 (from licorice, allergy inhibitors containing, as lipoxygenase and cyclooxygenase and hyaluronidase inhibitor)  
 RN 30508-27-1 CAPLUS  
 CN 1,3-Benzenediol, 4-[(3R)-3,4-dihydro-7-hydroxy-5-methoxy-6-(3-methyl-2-butenyl)-2H-1-benzopyran-3-yl]-2-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)

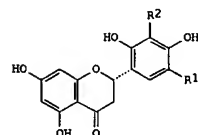
Absolute stereochemistry. Rotation (+).

L12 ANSWER 65 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L12 ANSWER 66 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1991:582941 CAPLUS  
 DOCUMENT NUMBER: 115:182941  
 TITLE: Sodium-potassium-activated ATPase inhibitors containing flavonoids from mulberry or licorice  
 INVENTOR(S): Sato, Shunji; Chin, Masao; Mihashi, Hiroshi; Nomura, Taro  
 PATENT ASSIGNEE(S): Tsumura and Co., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JXXXXF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

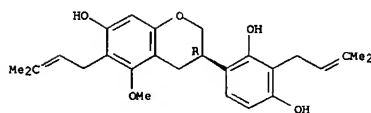
| PATENT NO.                                     | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| JP 03068516                                    | A2   | 19910325 | JP 1989-203967  | 19890808 |
| PRIORITY APPLN. INFO.: JP 1989-203967 19890808 |      |          |                 |          |
| OTHER SOURCE(S): MARPAT 115:182941             |      |          |                 |          |
| G1   |      |          |                 |          |



AB Na+,K+-ATPase inhibitors containing kuwanon C, kuwanon L, kuwanon H, morusin, oxydihydromorusin, flavanones I [R1 = H, CH2CH:CHMe2, R2 = H, Q1, sanggenone C, mulberrofuran A (II), mulberrofuran G, or licoricidin as an active ingredients are claimed for treatment of heart failure and atrial arrhythmia. Root bark of mulberry was degreased with hexane, successively extracted with benzene and AcOEt, then evaporated. The benzene extract was dissolved in MeOH and the MeOH-sol extract was subjected to silica gel column chromatog. eluting with benzene-MeOH. The benzene eluate was subjected to thin-layer chromatog. to give II. II (100 µM) inhibited Na+,K+-ATPase at inhibition rate 97.0%. Administration of the claimed compds. at 1.0 g/kg p.o. to mice caused no death. A composition containing II 10, corn starch 44, crystalline cellulose 40, CM-cellulose Ca 5, light SiO2, and Mg stearate 0.5 g was made into tablets (200 mg/tablet).  
 IT 30508-27-1P, Licoricidin  
 RL: PREP (Preparation)  
 (from licorice, Na+,K+-ATPase inhibitors containing)  
 RN 30508-27-1 CAPLUS  
 CN 1,3-Benzenediol, 4-[(3R)-3,4-dihydro-7-hydroxy-5-methoxy-6-(3-methyl-2-butenyl)-2H-1-benzopyran-3-yl]-2-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)

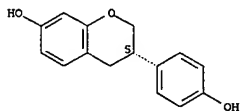
Absolute stereochemistry. Rotation (+).

L12 ANSWER 66 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



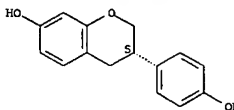
L12 ANSWER 67 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1989:51493 CAPLUS  
 DOCUMENT NUMBER: 110:51493  
 TITLE: Identification of phytoestrogens in the urine of male dogs  
 AUTHOR(S): Juniewicz, P. E.; Pallante Morell, S.; Moser, A.; Ewing, L. L.  
 CORPORATE SOURCE: Dep. Popul. Dyn., Johns Hopkins Sch. Hyg. Public Health, Baltimore, MD, 21205, USA  
 SOURCE: Journal of Steroid Biochemistry (1988), 31(6), 987-94  
 CODEN: JSTBBK; ISSN: 0022-4731  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Therespray-mass spectrometry and gas chromatog./mass spectrometry were used to identify the phytoestrogens daidzein, equol, formononetin, and genistein in HPLC purified fractions of urine obtained from male beagles. Using the same techniques the presence of daidzein and genistein was confirmed in the com. diet fed to these same dogs. Using the immature rat uterine cytosol estrogen receptor assay, relative binding affinities of 0.08, 1.1, <0.01, and 3.9% were obtained for daidzein, equol, formononetin, and genistein, resp. when compared to estradiol (100%). In conclusion, phytoestrogens are present in urine of male beagles. Moreover, the com. diet fed to these dogs contains isoflavones which can be converted to equol by intestinal microflora. The need for investigations of phytoestrogens (e.g. equol) excreted into the urine daily and its relationship to the incidence and severity of benign prostatic hyperplasia in the dog is indicated.  
 IT 531-95-3, Equol  
 RL: BIOL (Biological study)  
 (of urine, of male dog)  
 RN 531-95-3 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

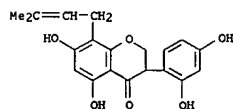


L12 ANSWER 68 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1987:175077 CAPLUS  
 DOCUMENT NUMBER: 106:175077  
 TITLE: Determination of urinary lignans and phytoestrogen metabolites, potential anticarcinogens and anticarcinogens, in urine of women on various habitual diets  
 AUTHOR(S): Adlercreutz, H.; Fotsis, T.; Bannwart, C.; Wahala, K.; Makela, T.; Brunow, G.; Hase, T.  
 CORPORATE SOURCE: Meilahti Hosp., Univ. Helsinki, Helsinki, SF-00290, Finland  
 SOURCE: Journal of Steroid Biochemistry (1986), 25(5B), 791-7  
 CODEN: JSTBBK; ISSN: 0022-4731  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Five compds., the lignans enterolactone [78473-71-9] and enterodiol [80226-00-2], and the isoflavonic phytoestrogen metabolites daidzein [486-66-8], equol [531-95-3], and O-desmethylnangolensin [21255-69-6], were measured by GC-MS in the urine of 5 groups of women (total number 53). The members of 3 dietary groups (omnivores, lactovegetarians, and macrobiotics) were living in Boston and 2 groups in Helsinki (omnivores and lactovegetarians). Measurements were carried out in 94 72-h samples. The highest mean excretion of the most abundant compound, enterolactone, was found in the macrobiotic group and the lowest by the omnivores. Total mean 24-h excretion of enterolactone was 17,680 nmol in the macrobiotics, 4170 nmol in the Boston lactovegetarians, 3650 nmol in the Helsinki lactovegetarians, 2460 nmol in the Helsinki omnivores, and 2050 nmol in the Boston omnivores. The other diphenols followed approx. the same pattern. In an earlier study, the lowest excretion of enterolactone (1040 nmol/24 h) was found in a group of postmenopausal apparently healthy breast cancer patients living in Boston. It is concluded that further studies are necessary to elucidate the possible role of these compds. in cancer and other diseases. However, the evidence obtained seems to justify the conclusion that these compds. may be among the dietary factors affording protection against hormone-dependent cancers in vegetarians and semivegetarians.  
 IT 531-95-3, Equol  
 RL: BIOL (Biological study)  
 (of urine, of women, diet composition effect on)  
 RN 531-95-3 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

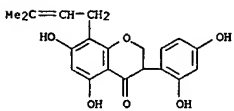
Absolute stereochemistry.



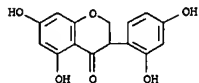
L12 ANSWER 69 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1987:64451 CAPLUS  
 DOCUMENT NUMBER: 106:64451  
 TITLE: Two cultivars of bean display a differential response to extracellular components from Colletotrichum lindemuthianum  
 AUTHOR(S): Tepper, Craig S.; Anderson, Anne J.  
 CORPORATE SOURCE: Dep. Biol., Utah State Univ., Logan, UT, 84322-4500, USA  
 SOURCE: Physiological and Molecular Plant Pathology (1986), 29(3), 411-20  
 CODEN: PMPPEZ; ISSN: 0885-5765  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Certain extracellular components from the a race of Colletotrichum lindemuthianum exhibit differential elicitor activity on bean (Phaseolus vulgaris) cultivars. Purification of a race extracellular components by a variety of chromatog. techniques revealed elicitor activity in components with different chemical compns. One class of elicitor, which does not adsorb to DEAE-Sephadex or CM-Sephadex, possesses galactose (17%), glucose (38%), and mannose (45%). This carbohydrate-rich complex displays high levels of elicitor activity on a race incompatible Dark Red Kidney bean but had no elicitor activity on compatible Great Northern bean. No extracellular components from the B race were detected to have elicitor activity on compatible Dark Red Kidney and Great Northern bean.  
 IT 40105-60-0, Kievitone  
 RL: PRP (Properties)  
 (induction of, in bean cultivars by Colletotrichum lindemuthianum elicitor components)  
 RN 40105-60-0 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-(2,4-dihydroxyphenyl)-2,3-dihydro-5,7-dihydroxy-8-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



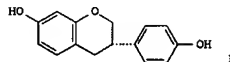
L12 ANSWER 70 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1986:512206 CAPLUS  
 DOCUMENT NUMBER: 105:112206  
 TITLE: Differential biochemical effects of elicitor preparations from Colletotrichum lindemuthianum  
 AUTHOR(S): Hamdan, Maha A. M. S.; Dixon, Richard A.  
 CORPORATE SOURCE: Dep. Biochem., R. Holloway Coll., Egham/Surrey, TW20 0EX, UK  
 SOURCE: Physiological and Molecular Plant Pathology (1986), 28(3), 329-44  
 CODEN: PMPPEZ; ISSN: 0885-5765  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Polysaccharide containing elicitor preps. from the culture filtrate and cell walls of C. lindemuthianum had broadly similar monosaccharide compns. Both preps. induced phenylalanine ammonia lyase, chalcone synthase, and chalcone isomerase extractable activities in bean (Phaseolus vulgaris) cell suspension cultures. However, although phytoalexin accumulation was observed in response to the 2 elicitors in bean endocarp tissue, the culture filtrate elicitor induced only phaseollin in bean cell suspension cultures, whereas the cell wall elicitor induced both kievitone and phaseollin, the latter to a concentration 70-fold greater than that induced by the culture filtrate elicitor. Only the cell wall elicitor induced deposition of wall-bound phenolics in bean cultures, and differences were also observed in the effects of the 2 elicitor preps. on levels of free and esterified hydroxycinnamic acids. Induction of prollyl hydroxylase extractable activity was observed in response to both elicitors, although increased accumulation of hydroxyproline in the cell walls of suspension-cultured bean cells was only induced following treatment with cell wall elicitor. The results are discussed in terms of the coordination and regulation of induced resistance responses, and the possible need for more than one elicitor to induce such changes is considered.  
 IT 40105-60-0  
 RL: FORM (Formation, nonpreparative)  
 (formation of, by bean, Colletotrichum lindemuthianum elicitors effect on)  
 RN 40105-60-0 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-(2,4-dihydroxyphenyl)-2,3-dihydro-5,7-dihydroxy-8-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 71 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1985:42908 CAPLUS  
 DOCUMENT NUMBER: 102:42908  
 TITLE: Chemical investigation of Ougeinia dalbergioides  
 AUTHOR(S): Kalidhar, S. B.; Sharma, Pushpa  
 CORPORATE SOURCE: Dep. Chem., Univ. Delhi, Delhi, 110 007, India  
 SOURCE: Journal of the Indian Chemical Society (1984), 61(6), 561  
 CODEN: JICSAH; ISSN: 0019-4522  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Heartwood of *O. dalbergioides* yielded genistein, ferreirin, neophellamuretin, orobol, vedelolactone, homoferreirin, ougenin, dalbergioidin, and kaempferol.  
 IT 30368-42-4  
 RL: BIOL (Biological study)  
 (from heartwood of *Ougeinia dalbergioides*)  
 RN 30368-42-4 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-(2,4-dihydroxyphenyl)-2,3-dihydro-5,7-dihydroxy- (9CI) (CA INDEX NAME)

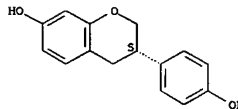


L12 ANSWER 72 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1985:19261 CAPLUS  
 DOCUMENT NUMBER: 102:19261  
 TITLE: Characterization of the estrogenic properties of a nonsteroidal estrogen, equol, extracted from urine of pregnant macaques  
 AUTHOR(S): Thompson, M. A.; Lasley, B. L.; Rideout, B. A.; Kasman, L. H.  
 CORPORATE SOURCE: Res. Dep., San Diego Zoo, San Diego, CA, USA  
 SOURCE: Biology of Reproduction (1984), 31(4), 705-13  
 CODEN: BIREBV; ISSN: 0006-3363  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



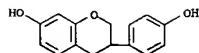
AB The estrogenic activity of equol (I) [531-95-3] from macaque urine, (±)-I [66036-38-2], and 17β-estradiol (E2) [50-28-2] was compared in vitro and in vivo. Relative binding affinity of I for rat uterine receptor was 1/10 that of E2, and the dissociation rate of I from the receptor was very high. I was ineffective in stimulating rat uterine weight gain and possessed limited ability to increase progesterone [57-83-0] receptor. Uterine nuclear receptors, after doses of I sufficient to produce depletion and replenishment of cytosol estrogen receptor, were not measurable by exchange assay. No antiestrogenic activity of I could be demonstrated. The weak potency and lack of antiestrogenic activity of I are difficult to reconcile with its ability to induce ovine infertility. Species differences at some level other than classical estrogen receptor as defined in the rat model may be responsible for variability in the impact of I.  
 IT 531-95-3 94105-90-5  
 RL: BAC (Biological activity or effector, except adverse): BSU (Biological study, unclassified): BIOL (Biological study)  
 (estrogenic activity of)  
 RN 531-95-3 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

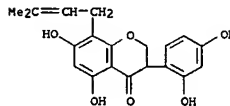


RN 94105-90-5 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

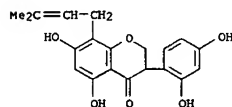
L12 ANSWER 72 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 NAME



L12 ANSWER 73 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1982:452662 CAPLUS  
 DOCUMENT NUMBER: 97:52662  
 TITLE: Effects of abscisic acid, cytokinins, and light on isoflavonoid phytoalexin accumulation in *Phaseolus vulgaris* L.  
 AUTHOR(S): Goossens, J. F. V.; Vendrig, J. C.  
 CORPORATE SOURCE: Lab. Plantenfysiol., Kathol. Univ. Leuven, Louvain, B-3000, Belg.  
 SOURCE: Planta (1982), 154(5), 441-6  
 CODEN: PLANAB; ISSN: 0032-0935  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Cotyledons of *P. vulgaris* L. contain small amts. of phaseollin and kievitone. Isolating the cotyledons from the plant does not alter phaseollin levels. Kievitone levels, however, although not affected in light-incubated cotyledons, increased rapidly in dark-incubated cotyledons. Abscisic acid (ABA) at 10<sup>-4</sup> M stimulated the accumulation of phaseollin in excised cotyledons in both light and darkness, whereas benzylaminopurine (BAP) increased these levels only in the light. The kievitone level was influenced by ABA and BAP only in dark-incubated cotyledons, i.e., inhibited at 10<sup>-4</sup> M. When excised cotyledons were treated with HgCl<sub>2</sub>, both phaseollin and kievitone accumulated rapidly in both light and darkness. The effect of ABA on these cotyledons was similar to that on nontreated cotyledons. The results demonstrate that the synthesis of the 2 phytoalexins is regulated by sep. mechanisms and indicate that the phytoalexin composition is dependent on the physiol. condition of the cotyledons. ABA and BAP may play a role in the resistance response of the plant.  
 IT 40105-60-0  
 RL: BIOL (Biological study)  
 (accumulation of, in bean cotyledons, abscisic acid and cytokinins and light effect on)  
 RN 40105-60-0 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-(2,4-dihydroxyphenyl)-2,3-dihydro-5,7-dihydroxy-8-(3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)

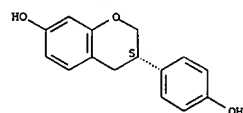


L12 ANSWER 74 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1981:136302 CAPLUS  
 DOCUMENT NUMBER: 94:136302  
 TITLE: Dose responses for Colletotrichum lindemuthianum  
 elicitor-mediated enzyme induction in French bean cell  
 suspension cultures  
 AUTHOR(S): Dixon, R. A.; Dey, P. M.; Murphy, D. L.; Whitehead, I.  
 M.  
 CORPORATE SOURCE: R. Holloway Coll., Univ. London, Egham/Surrey, TW20  
 OEX, UK  
 SOURCE: Planta (1981), 151(3), 272-80  
 CODEN: PLANAB; ISSN: 0032-0935  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The induction of L-phenylalanine ammonia-lyase (PAL, EC 4.3.1.5) and  
 flavanone synthase in French bean cell suspension cultures in response to  
 heat-release elicitor from cell walls of the phytopathogenic fungus *C.*  
*lindemuthianum* is highly dependent upon elicitor concentration. The elicitor  
 dose-response curve for PAL induction shows 2 maximum at 17.5 and 50 µg  
 elicitor carbohydrate/mL culture, whereas the flavanone synthase response  
 shows 1 maximum at .apprx.100µg/mL. The PAL response is independent of  
 the elicitor concentration present during the lag phase of enzyme  
 induction; if  
 the initial elicitor concentration is increased after 2 h by addition of  
 extra  
 elicitor, or decreased by dilution of the cultures, the dose response curves  
 obtained reflect the concentration of elicitor present at the time of  
 harvest.  
 PAL induction was not prevented by addition of Me sugar derivs. to the  
 cultures; α-methyl-D-glucoside, itself a weak elicitor or PAL  
 activity, elicited a multiphasic PAL response when increasing concns. were  
 added in the presence of *Colletotrichum* elicitor. Eight fractions with  
 different monosaccharide compns., obtained from the crude  
 elicitor by gel-filtration, each elicited different dose-responses for PAL  
 induction: the response to unfractionated elicitor was not the sum of the  
 responses to the isolated fractions. There was no correlation between the  
 ability of the fractions to induce PAL in the cultures and their ability  
 to act as elicitors of isoflavonoid phytoalexin accumulation in bean  
 hypocotyls.  
 IT 40105-60-0  
 RL: FORM (Formation, nonpreparative)  
 (formation of, in bean suspension cultures, *Colletotrichum*  
*lindemuthianum* elicitor-mediated)  
 RN 40105-60-0 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-(2,4-dihydroxyphenyl)-2,3-dihydro-5,7-dihydroxy-8-  
 (3-methyl-2-butenyl)- (9CI) (CA INDEX NAME)



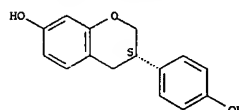
L12 ANSWER 76 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1977:53558 CAPLUS  
 DOCUMENT NUMBER: 86:53558  
 TITLE: Composition of some urinary calculi of  
 ruminants in Western Australia  
 AUTHOR(S): Nottle, M. C.  
 CORPORATE SOURCE: Anim. Health Lab., West. Aust. Dep. Agric., South  
 Perth, Australia  
 SOURCE: Research in Veterinary Science (1976), 21(3), 309-13  
 CODEN: RVTSAB; ISSN: 0034-5288  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Forty ruminant urinary calculi, selected as being essentially inorganic  
 and mainly obtained from sheep grazing in the drier wheatbelt areas of  
 Western Australia, were examined by optical and X-ray diffraction  
 techniques. Four mineral types, silica (SiO2.nH2O), weddellite  
 (CaC2O4.2H2O), calcite (CaCO3) and aragonite (CaCO3), were found. These  
 minerals were present respectively in 30, 17, 13, and 1 of the 40 calculi  
 examined and were the sole component in 12, 0, 7, and 0 calculi. One  
 calculus was composed of organic material which was subsequently shown to  
 consist mainly of 4'-O-methyl equol (4'-methoxy-7-isoflavanol, C16H16O3)  
 with a small amount of equol and a trace of formononetin. This is the 1st  
 report of a calculus of this composition. Determinative data useful  
 for identification of 4'-O-methyl equol, equol and a related substance are  
 presented in an appendix.  
 IT 531-95-3  
 RL: ANT (Analyte): ANST (Analytical study)  
 (determination of, in urinary calculi, in ruminants)  
 RN 531-95-3 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA  
 INDEX NAME)

Absolute stereochemistry.



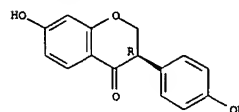
L12 ANSWER 75 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1977:66543 CAPLUS  
 DOCUMENT NUMBER: 86:66543  
 TITLE: Urinary sediments in sheep feeding on estrogenic  
 clover. V. Seasonal changes in the excretion of  
 components of calculi and sediments  
 AUTHOR(S): Nottle, M. C.  
 CORPORATE SOURCE: Anim. Health Lab., West. Aust. Dep. Agric., South  
 Perth, Australia  
 SOURCE: Australian Journal of Agricultural Research (1976),  
 27(6), 867-71  
 CODEN: AJA9A9; ISSN: 0004-9409  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Components of urinary calculi and sediments were analyzed from early July  
 to late October in 6 sheep grazing on pasture with estrogenic *Trifolium*  
*subterraneum*. Levels of these components were lowest in July-August and  
 reached their peaks during the later months. The detected ranges for  
 formononetin [485-72-3] were 0.3-2.7 mg %, for equol [531-95-3]  
 4-108 mg %, 4-O-methylequol [61514-94-1] traces to 39 mg %. Also detected  
 throughout the exptl. period were urolithin A [1143-70-0], urolithin B  
 [1139-83-9], indirubin [479-41-4], and indigotin [482-89-3]. Biochanin A  
 [491-80-5] was detected only in September-October.  
 IT 531-95-3  
 RL: BIOL (Biological study)  
 (of urine, in sheep ingesting estrogenic clover)  
 RN 531-95-3 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA  
 INDEX NAME)

Absolute stereochemistry.



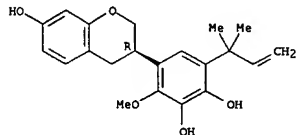
L12 ANSWER 77 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1976:102386 CAPLUS  
 DOCUMENT NUMBER: 84:102386  
 TITLE: Phytochemical examination of *Pericopsis* species  
 AUTHOR(S): Fitzgerald, Maurice A.; Gunning, Peter J. M.;  
 Donnelly, Dervilla M. X.  
 CORPORATE SOURCE: Dep. Chem., Univ. Coll., Dublin, Ire.  
 SOURCE: Journal of the Chemical Society, Perkin Transactions  
 1: Organic and Bio-Organic Chemistry (1972-1999)  
 (1976), (2), 186-91  
 CODEN: JCPRB4; ISSN: 0300-922X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI For diagram(s), see printed CA Issue.  
 AB Addnl. data considered in abstracting and indexing are available from a  
 source cited in the original document. The heartwood extractives of *P.*  
*mooniana*, *P. elata*, *P. laxiflora*, *P. schliebenii*, and *P. angolensis* were  
 examined by phys. methods and new compds. were prepared. (R)-2-O-  
 methylangolensin (I) was isolated from *P. elata*, 4',7-  
 Dihydroxyisoflavanone, isolated from *P. mooniana*, has the R-configuration.  
 The bark of *P. schliebenii* contained N-methylcytisine. The relevance of  
 the compilation to the proposed reduction of Afrormosia to *Pericopsis*  
 (Knapp-van Meeuwen, M. S., 1962) is discussed.  
 IT 58865-02-4  
 RL: BIOL (Biological study)  
 (from *Pericopsis* mooniana)  
 RN 58865-02-4 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 2,3-dihydro-7-hydroxy-3-(4-hydroxyphenyl)-, (3R)-  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.

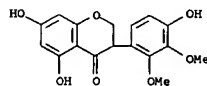


L12 ANSWER 78 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1976:40794 CAPLUS  
 DOCUMENT NUMBER: 84:40794  
 TITLE: Chemistry of Brazilian Leguminosae. LII. Isoflavonoids from *Cyclolobium* species  
 AUTHOR(S): Gottlieb, Otto R.; Braga de Oliveira, Alaide; Goncalves, Terezinha M. M.; De Oliveira, Geovane G.; Pereira, Sebastiao A.  
 CORPORATE SOURCE: Inst. Quim., Univ. Sao Paulo, Sao Paulo, Brazil  
 SOURCE: Phytochemistry (Elsevier) (1975), 14(11), 2495-9  
 CODEN: PYTCAS; ISSN: 0031-9422  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB (3R)-claussequinone (7-hydroxy-4'-methoxyisoflavanquinone) is the principal constituent of *Cyclolobium clausenii* and *C. vecchii* exts. *C. clausenii* contains addnl. (3R)-muroquinone (7-hydroxy-8,4'-dimethoxyisoflavanquinone), (3R)-vestitol (7,2'-dihydroxy-4'-methoxyisoflavan), (3R)- $\alpha,\alpha$ -dimethylallylcyclolobin [5'-(1,1-dimethylallyl)-7,3',4'-trihydroxy-2'-methoxyisoflavan], biscyclolobin, 3'-hydroxyformononetin, and isoliquiritigenin. The structural proposals for vestitol and claussequinone were confirmed by synthesis.  
 IT 58210-35-8  
 RL: BIOL (Biological study) (of *Cyclolobium* species)  
 RN 58210-35-8 CAPLUS  
 CN 1,2-Benzenediol, 4-(3,4-dihydro-7-hydroxy-2H-1-benzopyran-3-yl)-6-(1,1-dimethyl-2-propenyl)-3-methoxy-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

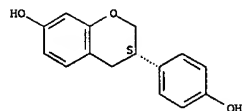


L12 ANSWER 79 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1973:463509 CAPLUS  
 DOCUMENT NUMBER: 79:63509  
 TITLE: Chemistry of Brazilian Leguminosae. XLI. Flavonoids from *Poecilanthus parviflora*  
 AUTHOR(S): Assumpcao, Rosely M. V.; Gottlieb, Otto Richard  
 CORPORATE SOURCE: Inst. Quim., Univ. Sao Paulo, Sao Paulo, Brazil  
 SOURCE: Phytochemistry (Elsevier) (1973), 12(5), 1188-91  
 CODEN: PYTCAS; ISSN: 0031-9422  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 G1 For diagram(s), see printed CA Issue.  
 AB A yellow crystalline material and a colorless compound were isolated from exts. of trunk wood from *P. parviflora*. The yellow substance was fungistatic and appeared to be a 1:1 mixture of I and II. The colorless compound was assigned the structure 4',5,7-trihydroxy-2',3'-dimethoxyisoflavanone on the basis of NMR spectra, mass spectra, and chemical tests.  
 IT 49776-79-6P  
 RL: SPM (Synthetic preparation); PREP (Preparation) (preparation of)  
 RN 49776-79-6 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-3-(4-hydroxy-2,3-dimethoxyphenyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 80 OF 80 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1965:412592 CAPLUS  
 DOCUMENT NUMBER: 63:12592  
 ORIGINAL REFERENCE NO.: 63:2249f-h  
 TITLE: Metabolism of estrogenic isoflavones in sheep  
 AUTHOR(S): Batterham, T. J.; Hart, N. K.; Lamberton, J. A.; Braden, A. W. H.  
 CORPORATE SOURCE: Div. Org. Chem., C.S.I.R.O., Melbourne  
 SOURCE: Nature (London, United Kingdom) (1965), 206(4983), 509  
 CODEN: NATUAS; ISSN: 0028-0836  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Biochanin A (I), genistein (II), and formononetin (III) were given to ovariectomized ewes and the metabolites in urine determined. Only trace amts. of free or conjugated isoflavones were found in the feces. I and II given intraruminally were degraded and p-ethylphenol (IV) was isolated as the major metabolite. Both IV and a small amount of undegraded I and II were excreted in conjugate form, and were extracted after acid hydrolysis of the urine. In untreated ewes and ewes treated with III, IV was only a minor component (<5%) of the urine phenols which consisted mainly of p-cresol (up to 65% of the total phenols). The amount of IV in the urines was roughly proportional to the dose of I or II, and at high dose levels (5 g./day for 4 days) the yield of IV was 60-65% of the total phenols, and was equivalent to 60-80% of the ingested isoflavone. Urine from animals given I (5 g./day) yielded more I (about 130 mg./day) than II (trace only), suggesting that demethylation is necessary before metabolism to IV occurs. I or II given intramuscularly (0.25 g./day for 4 days) did not increase the IV content of the urine. III given intraruminally did not alter significantly the composition of the simple urine phenols: the metabolites identified were daidzein and the isoflavan, equal, with a little unchanged III. III injected intramuscularly appeared to be largely excreted unchanged. Equol was not detected when I or II was given either intraruminally or intramuscularly. The estrogenic activity of the phenols recovered from the urine as determined by bioassay in mice was low, and of the order expected from the known amts. of isoflavones present.  
 IT 531-95-3, 4',7-Isoflavandiols (as formononetin metabolite)  
 RN 531-95-3 CAPLUS  
 CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.





=> log y

COST IN U.S. DOLLARS

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

CA SUBSCRIBER PRICE

SINCE FILE

ENTRY

522.48

SINCE FILE

ENTRY

-75.00

TOTAL

SESSION

857.03

TOTAL

SESSION

-75.00

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